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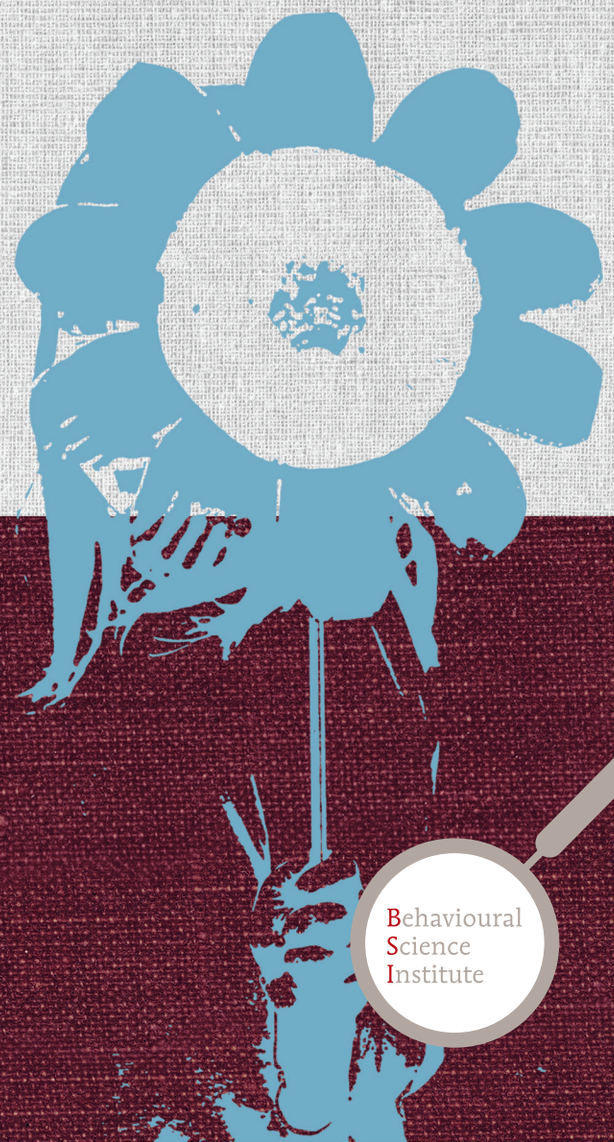
HAPPINESS AS A NORM

Happiness As A Norm

Its implications for the pursuit of happiness, person judgment, and decision making

Asteria Devy Kumalasari



Asteria Devy Kumalasari

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Promotoren:

Dr. J.C.T.M. Karremans

Prof. dr. A.J. Dijksterhuis

Manuscriptcommissie:

Prof. dr. E.S. Becker

Prof. dr. I. van Beest (Tilburg University)

Prof. dr. G.J. Westerhof (Universiteit Twente)

Contents

This book is dedicated to my late Father
Eucharius Djoko Purnomo
who taught me humility, patience,
and the true meaning of happiness

Chapter 1
Introduction

Background

Throughout the world and across time, people view happiness as an important life goal. In the late nineties, a college sample of more than seven thousands respondents in 42 countries, including countries that are not fully westernized, reported that they think about their happiness often, and that happiness and life satisfaction are very important to them (Suh et al., 1998). Similarly, several findings show that happiness has been perceived as one of the most important goals in life and the most important component of quality of life (e.g., Diener & Oishi, 2004; King & Broyles, 1997; King & Napa, 1998). Nowadays, people seem to have similar views on the importance of happiness as people twenty years ago. For example, a recent survey by the Organization for Economic Cooperation and Development (OECD) shows that happiness (i.e., life satisfaction) was among the top important indicators of a better life as expressed by more than 160,000 citizens around the world, including from countries where the economic conditions may be very poor (BLI Data Services V2, 2020).

People are made aware of the importance of happiness in various ways nowadays. For example, there has been a rapid increase in the number of books on happiness during the past decades. The Library of Congress stored as few as 25 books on how to be happy written in the 19th century. The number was increasing to 380 books in the 20th century, and to 936 books only in the past two decades. People can easily find guidance on how to be happy through the Internet. A Google search for “happiness” yields 832 million results and there are nearly 70,000 books on happiness available for purchase on Amazon.com. As a related example, recent findings show that people can have the impression that other people are living happier lives than themselves (Chou & Edge, 2012), as a result of being exposed to the flawless Facebook and Instagram profiles, pictures and status updates of others on social media (Zhao et al., 2008).

In addition to its personal importance to individuals, the importance of happiness as a societal goal was recognized by the 19th century utilitarian philosophers such as Jeremy Bentham, who advocated that the greatest happiness for the greatest number of people should be the basis of morals and legislation. Furthermore, the preamble of the American Declaration of Independence identifies

the pursuit of happiness as an unalienable right, along with life and liberty (Kesebir & Diener, 2008). More recently, the United Nation (UN) General Assembly in its resolution 66/281 (United Nations, 2012) invites the Member States, organizations and civil society to observe the International Day of Happiness every year on March 20 as a recognition of "the relevance of happiness and well-being as universal goals and aspirations in the lives of human beings around the world and the importance of their recognition in public policy objectives." The resolution states that "the pursuit of happiness is a fundamental human goal." In accordance to this invitation, the movements to develop happier and more caring societies emerged in several nations (e.g., Rosenthal, 2015) and the attempts to rank countries based on the level of the perceived happiness of their citizens has been made annually since 2012 (e.g., Helliwell et al., 2020). These facts confirm the notion that people, especially in Western cultures, have embraced happiness as one of the most important goals – both at an individual level, and for society at large (Veenhoven, 1994).

With the increasing focus on happiness in society and at an individual level, there has also been a rise in research on happiness, and the current introduction will provide a brief overview of the general findings in this literature. As will be explained in more detail, in the research reported in this dissertation, I seek to contribute to this literature by addressing the broader question: How important is happiness really in people's lives? Within this broader question, I address three more specific questions: First, do people indeed perceive that it is the societal norm to be happy? And how is this happiness norm related to one's own happiness, and to the pursuit of happiness? Second, when we judge others, to what extent does the other person's level of happiness affect our overall judgment of this person? And third, to what extent are the choices that we make in life affected by the level of anticipated happiness we believe a choice may bring us? I seek to provide answers to these questions, thereby testing the general hypothesis that the goal to become happy is an intrinsic part of what we do, how we judge others, and what choices we make.

Definition of Happiness

In Western culture, the quest to define happiness has begun since the time of Ancient Greece when philosophers contemplated the question of what "a good life" is. The attempts lead to three perspectives on happiness, namely *Eudaimonic*

Well-being, *Hedonic Well-being,* and *Life Satisfaction* (Diener, 2009). First, the *Eudaimonic Well-being* perspective is supported by Aristotle (384-322 BCE) who suggested that a good life follows from the exercise of virtuous activities. Correspondingly, Zeno (334-262 BCE) argued that a good life is achieved by accepting the moment as it presents itself, by maintaining the virtue of the present moment, and by not allowing oneself to be controlled by the desire for pleasure or fear of pain (Vitterso, 2013). Today's scholars define *Eudaimonic Well-being* as "the life states associated with using and developing the best in oneself, in accordance with one's true self and one's deeper principles" (Huta, 2013, p. 201). This so-called normative definition describes happiness by external criteria such as virtue or holiness. Happiness is thought of as possessing desirable qualities, and virtue is prescribed as the normative standard to judge people's lives (Diener, 1984). This conceptualization of the good life has also been endorsed by the belief systems in Eastern traditions such as Confucianism, Taoism, Buddhism, Hinduism, and Sufism. However, eastern and western eudaimonism advocates different positive qualities, such that eastern tradition emphasizes selflessness, adjustment to the environment and relational virtues, whereas western tradition emphasizes virtues like autonomy and environmental mastery (Joshanloo, 2014).

Second, whereas Aristotle believed that happiness was the by-product of a life of virtue, nowadays happiness is often associated more with the *Hedonic Well-being* perspective. According to this view, happiness is achieved by the avoidance of pain and pursuit of pleasure, with personal gratification, or with sensory pleasures. Thus, this perspective indicates the domination of positive affect over negative affect (Bradburn, 1969). This shift from *being* good to *feeling* good was apparent in Thomas Jefferson's Declaration of Independence and the French Revolution, which reflected an increasingly popular idea: that happiness is necessary for the health of the individual and society. Jeremy Bentham's utilitarianism that regarded a good life as the maximum surplus of pleasure also led to a new way of conceptualizing happiness in terms of pleasure versus pain. This subjective concept can be traced back to the Ancient Greeks where Aristippus (435-356 BCE) and Epicurus (341-270 BCE) argued that a good life can be achieved by maximizing pleasure and gaining freedom from pain, worry, fear, and confusion (Vitterso, 2013).

Third, scholars suggested that people rely on their own standards when determining what the good life is, and can decide for themselves whether they are

living good lives or whether his/her life is worthwhile (Diener, 2000, 2009). This subjective concept of happiness was also defined as "a global assessment of a person's quality of life according to his own chosen criteria" (Shin & Johnson, 1978, p. 478). This *Life Satisfaction* perspective can be traced back to the time when Marcus Aurelius (121-180 AD) wrote that "no man is happy who does not think himself so" (Diener, 2009, p. 13).

In the last several decades, scientific research aimed to study the subjective approach to a good life, which focused on both the satisfaction with life and the hedonic well-being perspectives. This approach is called "*subjective well-being*" (SWB). As suggested by Diener (2000), this evaluation includes two components, namely cognitive and affective evaluations. The cognitive component of happiness is life satisfaction (global judgments of one's life) and satisfaction with important domains (e.g., work, marriage). The affective component is positive affect (experiencing high levels and frequency of pleasant emotions and moods) and negative affect (experiencing low levels and frequencies of unpleasant emotions and moods). This may mean either someone is experiencing mostly pleasant emotions during the current period of life, or that the person is predisposed to such emotions, whether or not he or she is currently experiencing them (Diener, 2009). Hence, happy people are those who experience many pleasant and few unpleasant emotions, who experience many pleasures and few pains, and who are satisfied with their lives.

Happiness in the Current Dissertation

In the present dissertation I will approach happiness in accordance with the subjective well-being view on happiness, defining and measuring happiness as people's subjective evaluations of their lives. I suggest that the subjective well-being approach may well resemble lay people's idiosyncratic definition of happiness. As mentioned above, happiness consists of cognitive and affective components. The relation between these two components has not been as thoroughly researched. Therefore, to measure happiness, researchers typically measure each of the components separately, or assess global evaluations using single-item scales (Diener, 2009). For example, Bradburn's (1969) Affect Balance Scale and Watson, Clark, and Tellegen's (1988) Positive and Negative Affect Schedule (PANAS) assess the affective components of happiness as the balance of positive and negative affect experienced

during the past weeks. The cognitive component has been assessed with life satisfaction inventories such as the Satisfaction with Life Scale (Diener et al., 1985), whereas the global evaluation measures also include single-item scales such as Cantril's Self-Achoring Scale (Cantril, 1965), the Gurin Scale (Gurin et al., 1960), and the Self-rating of Happiness (Abdel-Khalek, 2006).

In an attempt to measure happiness as a general assessment, when I measure happiness in the present research in this manuscript, I used the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999). It is a measure of overall subjective happiness that is a global, subjective assessment of whether one is a happy or an unhappy person. The 4-items scale has good-to-excellent internal consistency, good test-retest reliability over periods ranging from three weeks to one year (Lyubomirsky & Lepper, 1999). More recent research found that the SHS has moderate to high correlations with both life satisfaction and positive affect and low correlation with playfulness, which provide some evidence for the convergent and discriminant validity of the scale (Mattei & Schaefer, 2004). In sum, the current dissertation focuses on the subjective well-being approach to define happiness and measures it using the global and subjective assessment of people's own happiness.

The Determinants of Happiness

A lot of research has been devoted to examine what determines happiness. Much research (see Pavot & Diener, 2013 for a detailed review) has focused on examining the role of demographic characteristics such as gender, age, marital status, income, and religiosity on happiness. The findings suggest that there are no significant differences in average level of happiness between men and women, although women tend to experience both positive and negative emotion more intense than men (Diener et al., 1999). Moreover, happiness tends to increase as individuals get older, and declines only at the end of life (Mroczek & Spiro, 2005). Married people tend to be happier than people who are not married (Lucas et al., 2003), and divorced people report lower levels of happiness after divorce than before divorce (Lucas, 2005). The impact of money on happiness is strongest for individuals living at levels of poverty or near-poverty, but tends to decrease as the level of income increases (Diener et al., 2009). The relation between religiosity and happiness is yet unclear; some research found positive associations (Argyle & Hills, 2000; Lewis

et al., 2005) while others did not (e.g., Lewis et al., 2000; Sillick et al., 2016). In short, previous research found various associations between people's life circumstances (i.e., age, marital status, economic status, and religiosity) and their levels of happiness.

Perhaps surprisingly, as suggested by a theoretical model of the determinants of happiness from Lyubomirsky and colleagues (2005), the abovementioned life circumstances contribute only about 10% of the variance in happiness (Argyle, 1999; Diener et al., 1999). The model suggests personality traits as relatively stable determinants of happiness (i.e., happiness set point) accounting for about 50% of the variance in happiness (Braungart et al., 1992; Lykken & Tellegen, 1996). For example, it has been consistently found that extraversion and neuroticism are correlated robustly with the affective component of happiness (Costa & McCrae, 1980; Steel et al., 2008). The remaining 40% of the variance in happiness is determined by intentional activity, that is, a wide variety of things that people do and think in their daily lives, such as exercising regularly, being kind to others (e.g., Keltner & Bonanno, 1997; Magen & Aharoni, 1991), thinking positively, counting one's blessings (Emmons & McCullough, 2003; King, 2001), and striving for important goals (Sheldon & Houser-Marko, 2001). In other words, these findings may suggest that happiness is for a significant part malleable, determined by the actions and choices that people make.

The Outcomes of Happiness

Happiness research has also found many substantial beneficial outcomes of happiness (see Lyubomirsky, Sheldon, et al., 2005 for review). Such outcomes can be categorized into four life domains: social relationships, health and longevity, work, and income. High levels of happiness appear to enhance and increase social interaction (Fredrickson, 2001). Happy people tend to create their own social support systems (Cunningham, 1988). High levels of happiness have also been linked to a better functioning immune system (e.g., Dillon et al., 1985), and even longer life expectancy (e.g., Danner et al., 2001). The benefits of happiness in the workplace are expressed in the form of higher productivity, reliability, and overall work quality (Staw et al., 1994). Happier people are likely to earn more money (Diener et al., 2002). In sum, the pursuit and experience of happiness is often seen as a hallmark of

psychological health (Fredrickson, 1998). Given that happiness brings a lot of benefits, it is not surprising that happiness is considered important for people's life.

Despite the positive outcomes of happiness, there are some research findings that have suggested possible negative consequences. For example, experiencing intense levels of happiness may cause disengagement from reality that in turn lead to risky behaviours and dysfunction in certain areas of life (Cyders & Smith, 2008). Pursuing happiness in a wrong way, such as wanting to be happy too much, may decrease people's well-being and make them lonely (Mauss et al., 2011, 2012). Recent research found that the link between motivation to pursue happiness and well-being is moderated by cultural differences in the extent to which people view happiness as a socially engaged concept (i.e., pro-social behaviour and relational interdependence; Ford et al., 2015). People who pursue happiness in more socially engaged ways report higher level of well-being in collectivistic cultures (that tend to view happiness from social engagement) than in individualistic cultures (that tend to view happiness from personal achievements). It seems that the occurrence of several potential negative outcomes of happiness is influenced by some factors such as the intensity and the cultural fit of the experience. Moreover, people in general seem to focus and have more awareness on the benefits of happiness. For these reasons, people may consider happiness as desirable and important.

The Present Dissertation

It should be clear from the above that happiness plays an important role in people's lives. If happiness is truly important, what would be the implication of it? In this dissertation, I aim to answer this broad question by addressing some related and more specific questions:

1. If happiness is so important, especially for modern people nowadays, is it possible that happiness has shifted from being an ideal to actually being a *norm*? And if so, would it actually and paradoxically undermine people's happiness? Does a happiness norm promote the pursuit of happiness, or actually undermine the pursuit of happiness?
2. If happiness is so important and is even perceived as a norm, how does it affect our judgments of others? Do we like and envy happy people (who comply with the norm) more so than unhappy people (who divert from the norm)?

3. If happiness is so important, it can be expected that our choices are for an important part driven by the anticipation of how much happiness a certain choice would bring. Do people indeed make choices based on what they believe makes them more happy?

These questions will be considered in the different chapters. Below I will briefly provide an overview of the studies conducted in every chapter. I will not write too much information here as every chapter will give an extensive introduction to the studies.

Chapter 2 examines the relationship between the perceived societal *norm* to be happy (i.e., *happiness norm*), the tendency to pursue happiness and one's own levels of subjective happiness. A cross-cultural study involving more than one thousand participants from The Netherlands, the United States, China and Indonesia was conducted to investigate the association between the happiness norm, the pursuit of happiness, and subjective happiness, and whether these associations differ across cultures.

Chapter 3 examines the relationship between a person's level of happiness and the extent to which people like and envy the person. Three experimental studies were conducted, involving a total of five hundred adult participants from the United States, to assess participants' own happiness level and their judgment toward a target person in terms of liking and envy, based on a person-description that was experimentally varied in the level of happiness.

Chapter 4 examines the relation between the level of anticipated happiness of an option and the likelihood to choose the option given that the decisions are made intuitively or deliberatively. In a two-phase online experiment, a total of one hundred and forty participants from the United Kingdom and the United States were presented by 15 pairs of options one at a time. In phase one, they were asked to indicate the extent to which each option would contribute to their happiness. In phase two, one-week later participants were randomly assigned to make choice on similar pairs of options either by using deliberative thinking or intuitive thinking.

Chapter 5 outlines the research questions and summarizes the main findings of previous studies. The results are discussed in the light of their theoretical, methodological and practical relevance. To summarize, the present dissertation looks

into support for the claim that happiness is important by testing the general hypothesis that the desire to be happy underlies what we do, how we judge others, and what choices we make.

The chapters of this dissertation are written independently and based on articles that have been submitted to journals for publication. Therefore, there is some overlap between chapters. Each chapter, except Chapter 5, can be read separately.

Chapter 2

On the relationship between the happiness norm, the pressure to be happy, and the pursuit of happiness: A cross-cultural examination*

* *This chapter is based on: Kumalasari, A. D., Karremans, J., Van der Veld, W. M., Dijksterhuis, A. On the relationship between the happiness norm, the pressure to be happy, and the pursuit of happiness: A cross-cultural examination. Manuscript submitted for publication.*

Abstract

People value happiness, perhaps more so than ever in present day society. In fact, it has been suggested that there may be a societal norm and pressure to be happy. The present research aimed to explore the relation between the happiness norm, happiness pressure, the pursuit of happiness and subjective happiness across different cultures (among 1077 participants from The Netherlands, the United States, China, and Indonesia). Using a multi-group Structural Equation Modelling, a mediation model was analyzed across these countries simultaneously. Results showed that in all countries but the United States, a happiness norm was positively associated with subjective happiness. In all countries but the Netherlands, a happiness norm was positively associated with the pursuit of happiness. In the United States and China, the relation between the happiness norm and subjective happiness was mediated by the pursuit of happiness. However, happiness pressure was associated with lower subjective happiness, and in the United States this relationship was mediated by a diminished pursuit of happiness. In sum, the findings suggest that a happiness norm may positively affect subjective happiness as people pursue happiness more strongly, while feeling high pressure to be happy negatively affects subjective happiness.

Keywords: Individualistic-collective culture; Pursuit of happiness; Social norm; Social pressure; Subjective happiness

Introduction

In the past decades, research has provided insight into the antecedents of happiness, into how people sustain and enhance happiness, and also into the variety of beneficial outcomes of increased happiness (e.g., Emmons & McCullough, 2003; Keltner & Bonanno, 1997; King, 2001; Lyubomirsky, Sheldon, & Schkade, 2005; Magen & Aharoni, 1991; Seligman, 1991; Sheldon & Houser-Marko, 2001). Such research endeavors are consist with the observation that in present day society the importance of happiness is emphasized perhaps more strongly than ever (Veenhoven, 2009). Since 2012, an annual survey of the state of global happiness ranks countries on the level of happiness of their citizens (e.g., Helliwell et al., 2012, 2020), and the United Nations has announced an International Day of Happiness (March 20). Movements to build a happier and more caring society emerged in several nations (e.g., Rosenthal, 2015). Moreover, the number of books on happiness and how to achieve it is increasing rapidly, and people seem to be reminded daily of the importance of happiness through television, newspapers, magazines, social media, and the internet. At times it seems that people simply ought to strive for happiness. Although many findings demonstrate society's emphasis on the pursuit of happiness, very little is known about how this affects people's happiness.

Research has shown that the outcomes of happiness benefit individuals, families, and communities in many different life domains, ranging from a positive state of mind to successful work outcomes, from positive mental and physical health to successful social relationships (see Lyubomirsky, Sheldon, & Schkade, 2005 for review). It is therefore not surprising that it seems natural for people to pursue happiness in an attempt to obtain these benefits. However, consistent with the notion of society's emphasis on happiness, in the current article we argue that people may also pursue happiness because they perceive a strong norm or even a pressure to be happy. Below, we explain what we mean by a happiness norm and happiness pressure and how they may relate to the pursuit of happiness. And as will be explained, we explore these relationships across a number of countries and cultures.

The Happiness Norm

Society's emphasis on happiness may lead to the emergence of a prescriptive norm to be happy that we refer as *the happiness norm*. According to Cialdini and colleagues (1991, p. 203), a prescriptive (or injunctive) norm is a norm that characterizes the perception of what most people approve or disapprove. Prescriptive norms specify what ought to be done. They constitute the moral rules of the group (i.e., society). Indeed, it has been argued that the happiness norm may act as a prescriptive norm which suggest that people ought to be happy, grounded in a belief that society demands happiness (cf. Alpizar et al., 2005; Veenhoven, 1984) In today's society, this demand can perhaps most clearly be observed in what people post on social media. People tend to make positive self-presentations on their Facebook or Instagram profiles by posting information and images that are socially desirable and positive (e.g. Nadkarni & Hofmann, 2012). These kind of posts usually receive many "likes" and "comments" from other users, indicating that they are indeed accepted and approved, and the positive or happy images of others may give people the impression that others are always happy (Chou & Edge, 2012).

A prescriptive norm, according to Cialdini and colleagues (1991), may be adopted by individuals as a personal belief. In the case of the happiness norm, people may believe that high levels of happiness should be achieved. Moreover, a prescriptive norm serves to direct behaviour and motivate action particularly when the norm is made salient or focused upon (Kallgren et al., 2000). Since people are primed nowadays with the importance of happiness on a regular basis, the norm may become salient frequently or even chronically. Furthermore, prescriptive norms direct behaviour by means of social rewards and punishments. People are motivated to behave according to the norm to gain social approval and acceptance. They avoid counter-normative behaviour to prevent social disapproval and rejection (Cialdini & Trost, 1998). Based on such considerations, we argue that a perceived happiness norm may be associated with a more active pursuit of happiness, as people are motivated to adhere to norms. Put differently, in the current research we examine the prediction that a perceived happiness norm is positively associated with the pursuit of happiness (Hypothesis 1).

Happiness Pressure

When most people perceive a certain norm and are motivated to adhere to it – and in this case would pursue happiness based on a perceived happiness norm – norms can have various benefits, including individual wellbeing and social cohesion. However, we propose that the current emphasis on happiness may also lead to experienced *happiness pressure*. According to Rimal and Real (2003), pressure may be experienced when one feels that one is being deviant from society. For example, by continously seeing happy others (e.g., images on Facebook) people may start comparing, and may feel insecure and feel the pressure to be just as happy as all others. Indeed, there is good evidence that people engage in social comparison when evaluating their own happiness (Easterlin, 2003; Smith et al., 1989). Pressure may also be experienced because one worries of losing the benefits of conforming with society. For instance, some people may feel pressured or obliged to be happy and to pursue hapiness merely because they seek positive evaluations of others and to experience the benefits of happiness.

One consequence of happiness pressure could be that people who are not all that happy, and who experience pressure to be happy, start to sense a lack of self-efficacy and competence. People are less likely to engage in activities for which they have low self-efficacy (Van der Bijl & Shortridge-Baggett, 2001) and generally are less motivated to act when feeling incompetent (Bandura, 1986). In addition, it is possible that happiness pressure leads to reactance, that is, it may elicit behavior that opposes the actions being encouraged to adopt (Brehm & Brehm, 1981; Buller et al., 1998). It thus seems reasonable to predict that, whereas a prescriptive happiness norm may be associated with a stronger pursuit of happiness, people who experience more pressure to be happy (i.e. happiness pressure) may actually pursue happiness to a lesser extent (Hypothesis 2).

Does pursuing happiness lead to more happiness?

There are good reasons to believe that pursuing happiness can indeed lead to more happiness. To give an example, Lyubomirsky and Layous (2013) demonstrated that engaging in a 6-week behavioural and cognitive happiness-enhancing intervention that included performing kind acts and counting one's blessings, increases happiness. Certain virtues, such as gratitude (Emmons &

McCullough, 2003) and forgiveness (McCullough et al., 2000), when practiced consistently, can bring more happiness. Moreover, a study on 500 ethnically diverse students revealed that there are at least 8 strategies of maintaining or increasing happiness (e.g., affiliation, partying, mental control, goal pursuit, active and passive leisure, religion and direct attempts) that contribute 52% of the variance in subjective happiness (Tkach & Lyubomirsky, 2006).

Despite such successful attempt of the pursuit of happiness, a growing body of research findings suggests that pursuing happiness could also result in negative outcomes (Ford & Mauss, 2014). Correlational studies found that individuals who strongly value happiness tend to report low levels of emotional well-being and high depressive symptoms (Mauss et al., 2011) and are at risk of a major depressive disorder (Ford et al., 2014). Valuing happiness is also related to greater loneliness (Mauss et al., 2012). Moreover, studies on mental control (Wegner, 1994) suggest that striving to alter mood can have ironic effects. Occasionally, when people strive to pull themselves out of a bad mood, instead of obtaining a better mood, they feel worse as a result. Thus, there are several findings to suggest that there are pitfalls when explicitly attempting to pursue happiness. It seems that pursuing happiness does not necessarily lead to more happiness.

In addition to Hypotheses 1 and 2, we explored the association between the level of happiness pursuit, and self-reported happiness. According to the reasoning in the previous paragraph, it may be the case that a stronger perceived happiness norm may be associated with more pursuit of happiness (hypothesis 1) which in turn might be associated with higher levels of happiness, while more perceived happiness pressure may be associated with less pursuit of happiness (hypothesis 2), which in turn might be associated with lower levels of happiness. In other words, we argue that there is an indirect relationship between happiness norm (and pressure) and subjective happiness through the pursuit of happiness. Figure 1 is the conceptual model that represents these relationships. The primary goal of the current research was to examine the associations between the happiness norm, happiness pressure, the pursuit of happiness, and subjective levels of happiness, as depicted in the model in Figure 1.

As a secondary goal, we explored these predictions across a variety of countries and cultures, to examine whether the associations between our main

variables of interest generalize across different cultures, ranging on individualism versus collectivism (Hofstede et al., 2010). However, it is also possible that the proposed associations between perceived happiness norm, happiness pressure, happiness pursuit, and subjective happiness may differ among different cultures. Research involving students from 42 Eastern and Western countries (see Suh et al., 1998) showed that concerns about happiness were high in all of the countries surveyed. However, a literature review by Joshanloo and Weijers (2014) revealed that the importance of happiness is most strongly experienced in more individualistic societies, particularly in the United States (Eid & Diener, 2001; Held, 2002; Menon, 2012). Moreover, research suggests that personal happiness is more strongly emphasized in individualistic cultures than in collectivistic cultures (e.g., Ahuvia, 2001; Mesquita & Albert, 2007). Whereas Westerners feel a strong pressure to attain and express personal happiness, East Asians tend to feel a certain pressure to bring about and experience social harmony (Suh, 2000). Thus, it seems likely that the relationship between perceived happiness norm, perceived happiness pressure, and the perceived pursuit of happiness is stronger in individualistic countries than in collectivistic countries.

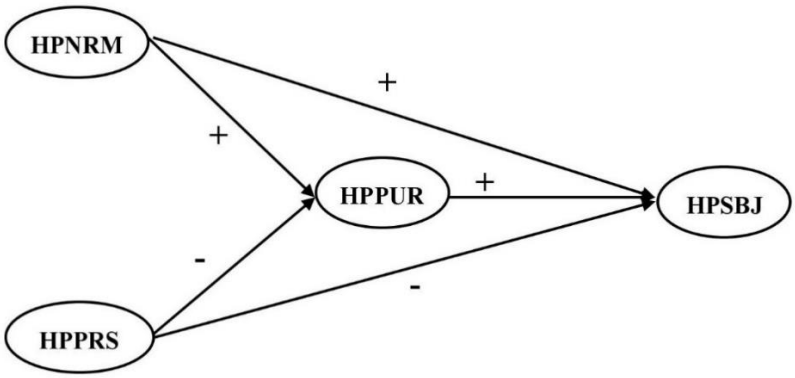

Figure 1: The conceptual model representing the hypothesized relationships between the perceived happiness norm (HPNRM), the perceived pressure to be happy (HPPRS), the pursuit of happiness (HPPUR), and subjective happiness (HPSBJ).

In sum, the current study aimed to answer several research questions. First, is there a relation between the perceived happiness norm and the pursuit of happiness, and between the perceived happiness pressure and the pursuit of happiness, and are these relationships associated with increases or decreases in the level of subjective happiness? Second, do these relations differ between countries that traditionally endorse more collectivistic worldviews (i.e., Indonesia and China), and more individualistic worldviews (i.e., the United States and The Netherlands). Specifically, we explored whether the perceived happiness norm and perceived happiness pressure may be more strongly related to the pursuit of happiness and the subjective happiness in individualistic Western countries as compared to collectivistic Eastern countries.

Method

Participants and Procedures

A total of 1077 university students from The Netherlands, the United States (as individualistic countries; ranked respectively as the 1st and the 6th among 76 countries on the Individualism Index Values/IDV; Hofstede et al., 2010) and Indonesia and China (as collectivistic countries; ranked respectively as the 70th and the 59th on the IDV) participated in the study. Table 1 shows the participants' characteristics. In the United States, participants were recruited from Amazon's Mechanical Turk (MTurk) – an online participant pool. Participants were included if they were university students residing in the United States. In the Netherlands and China, participants were recruited at a single university, while the Indonesian sample consisted of students from two different universities. Participants provided their informed consent to participate and were given compensation (i.e. money, souvenirs or course credit) following participation in the study.

Table 1
Sample Characteristics

Characteristics	Countries			
	The Netherlands	United States	China	Indonesia
N	254	254	271	298
Age range (years)	17-29	18-45	16-21	16-22
Age mean (years)	20.06	24.54	18.63	19.24
Female (%)	85.8	38.2	52.4	74.5

In the United States and The Netherlands, participants who agreed to participate completed an online questionnaire. In Indonesia and China, participants were recruited at the university campus. If they agreed to participate, they were asked to complete a paper-and-pencil questionnaire on the spot. Participants were asked to complete the Happiness Norm Scale, the Happiness Pressure Scale, the Pursuit of Happiness Scale - developed for the current research pursuit (see Supplemental Material) - and the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) on 7-point Likert scales. These measures were included as parts of a larger questionnaire.

The Dutch and the United States students completed the English version of the questionnaires. Dutch university students receive most of their course materials in English and are used to express themselves in English. The questionnaire was translated into Bahasa for Indonesian students and into Chinese for the Chinese students. The translations were checked using a back-translation procedure (Brislin, 1986).

Measures

Happiness Norm Scale (HNS)

The HNS was developed to measure the level of perceived presence of a happiness norm. The happiness norm was operationalized as the extent to which participants agree with statements implying a belief that society promotes a norm to be happy. Participants were asked to indicate their level of agreement with 5

statements (e.g. "The norm in today's society is to be as happy as possible", "Society encourages people to strive for happiness"), that could be scored on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Higher scores indicate stronger perceived presence of a happiness norm. The internal reliability of the HNS is adequate (Cronbach's α = .86). All items of the scales can be found in the Supplemental Material.

Happiness Pressure Scale (HPS)

HPS consists of 5 items measuring the level of perceived happiness pressure. Happiness pressure was operationalized as the extent to which participants agree with statements describing negative feelings or thoughts experienced as a consequence of the perceived pressure to be happy. Participants were asked to indicate their level of agreement with each statement on the HPS (e.g., "I experience today's norm to be happy as a burden", "I feel society's pressure to be happy"), that could be scored on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Higher scores indicate more happiness pressure. The HPS has an adequate internal consistency (Cronbach's α = .75).

Pursuit of Happiness Scale (PHS)

PHS measures the extent to which people perceive themselves to pursue happiness. Participants were asked to indicate their level of agreement with 9 statements (e.g. "I spend most of my time trying to be happy", "I make strong efforts to feel happier than I am now"), that could be scored on 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Higher scores indicate a higher level of the pursuit of happiness. The PHS has adequate internal consistency (Cronbach's α = .86). However, as we explain in more detail in Appendix 1, based on measurement invariance tests we retained only 5 items for the final analyses.

Subjective Happiness Scale (SHS)

SHS is a widely used scale measuring "global, subjective assessment of whether one is a happy or an unhappy person" (Lyubomirsky & Lepper, 1999, p. 139). The scale consists of 4 items, 2 of which assess self-perceptions based on absolute ratings of well-being and ratings relative to peers. A further 2 items present

descriptions of happy and unhappy individuals, and ask respondents to rate the extent to which descriptions are accurate of themselves using 7-point Likert scale. Higher scores indicate higher level of happiness. SHS has good-to-excellent internal consistency, good test-retest reliability over periods ranging from three weeks to one year, as well as good convergent and discriminant validity (Lyubormirsky & Lepper, 1999).

Data Analyses

The aim of this study is to test the relationship between happiness norm, happiness pressure, the pursuit of happiness, and subjective happiness, and to explore possible differences in these relationships between The Netherlands, the United States, Indonesia, and China. In order to test our hypotheses, we performed several analyses. In the first step we estimated the factor model separately for each construct while simultaneously testing for configural and metric invariance (Meredith, 1993). Both forms of invariance are required to make valid comparisons of relationships across groups or cultures. In the second step we extended the model from the first step, by combining the separate multigroup factor models into a larger multigroup mediation model. The mediation hypotheses are depicted in Figure 1. We analysed the data with LISREL 8.8 (Joreskog & Sorbom, 1993) using the robust maximum likelihood procedure (Satorra & Bentler, 1994). This procedure is used because the data are not perfectly normally distributed. Structural equation models are often evaluated using fit indices (e.g., the RMSEA, GFI) with fixed critical values. This practice has received its share of criticism (e.g., Marsh et al., 2004). We use an alternative procedure developed by Saris, Satorra, and Van der Veld (2009). This procedure takes the power of the test into account in the decision whether a constrained parameter is a misspecification or not. We used the JRule Software (Van der Veld & Saris, 2011), which reads the output of a Lisrel analysis, to find misspecifications in the model that we analyzed. For the analyses we used the JRule settings as described in van der Veld and Saris (2011).

Results

The Measures' Metric Invariance

The first step of our data analysis was testing the configural and metric invariance of the measures. Results show that overall, the happiness norm scale, the happiness pressure scale, the pursuit of happiness scale and the subjective happiness scale were all partial metric invariant. This means that the scales can be used to validly compare the relationships between these constructs across the different countries (see Appendix 1 for the detailed results).

Direct and Indirect Relations between Latent Variables

As the second step, we analyzed a multigroup (4 countries) mediation model simultaneously with a measurement model. The specification of the measurement model was copied from the measurement invariance analysis. In fact, here we used the same set of restrictions as in the metric invariance analysis. Figure 2 contains the estimates of the direct and indirect effects between latent variables across countries.

How are perceived happiness norm, perceived happiness pressure, and pursuit of happiness related? Figure 2 shows the cross-cultural differences and similarities in the relationships between these variables. First, in line with Hypothesis 1, in all countries the level of perceived happiness norm was positively associated with the level of pursuit of happiness (albeit non-significant in The Netherlands). Second, in line with Hypothesis 2, we found some support that perceived happiness pressure was negatively related with the level of pursuit of happiness, however, this was only the case in Indonesia and the United States, and not in The Netherlands and China. Third, perceived happiness norm was positively related with subjective happiness in all countries (but non-significant in the United States), while perceived happiness pressure was, as predicted, negatively related with subjective happiness in all countries. This effect was somewhat stronger in The Netherlands and the United States than in China and Indonesia. Fourth and additionally, perceived happiness norm was positively related with perceived happiness pressure in The Netherlands.

However, this relation was not observed in the United States and Indonesia, and was in fact negative in China.

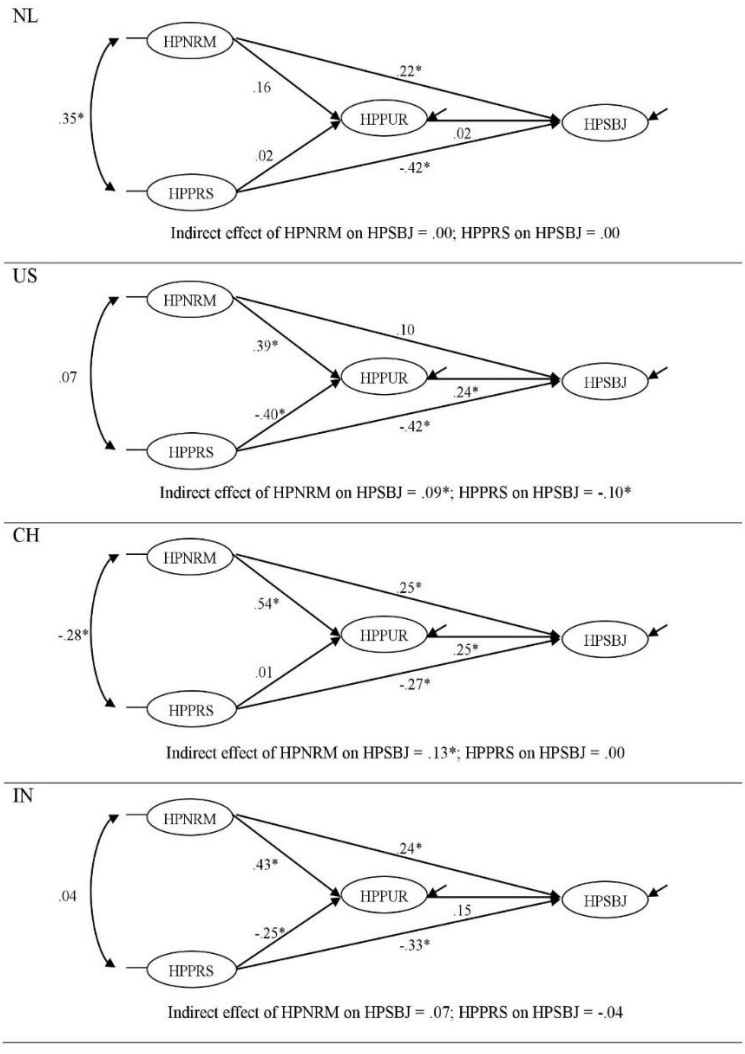

Figure 2: Standardized estimates of direct and indirect effects between latent variables across countries. Standardized estimates of indirect effects are shown below each model. *p = <.05. US the United States, NL The Netherlands, CH China, IN Indonesia. HPNRM happiness norm, HPPRS happiness pressure, HPPUR pursuit of happiness, HPSBJ subjective happiness.

Regarding indirect effects (see indirect effect estimates in Figure 2), we observed that in the United States, perceived happiness norm and perceived happiness pressure both had an indirect effect on subjective happiness, through the perceived pursuit of happiness. In China perceived happiness norm (but not perceived happiness pressure) had an indirect effect on subjective happiness through the perceived pursuit of happiness. In the Netherlands and Indonesia, both perceived happiness norm and perceived happiness pressure had no significant indirect effect via perceived happiness pursuit on subjective happiness.

Discussion

The study presented in this chapter was designed to explore the relation between a happiness norm, happiness pressure, the pursuit of happiness and actual subjective happiness. Moreover, we examined these associations in individualistic (i.e. the United States and The Netherlands) and collectivistic (i.e. Indonesia and China) countries. We found that across countries except for The Netherlands, the perception of a happiness norm was directly associated with more pursuit of happiness, and in all countries but the United States, the perceived happiness norm had a positive relationship with subjective happiness. Furthermore, in the United States and China the relation between the perception of a happiness norm and subjective happiness was mediated by the pursuit of happiness. Specifically, there was positive association between the happiness norm and happiness pursuit, which in turn was associated with more subjective happiness. We also found that across countries happiness pressure was directly associated with low levels of subjective happiness, and in the United States this relationship was mediated by a lowered pursuit of happiness. Together, these findings suggest that the perception of happiness norm and happiness pressure are differentially associated with the pursuit of happiness and subjective happiness.

Our results showed that across all countries, except The Netherlands, perceived happiness norm was directly related with more pursuit of happiness. This finding supports the notion that social norms can motivate people and direct their actions towards complying with the norm (Cialdini et al., 1991). Although the happiness norm may have certain negative connotations, it seems that the happiness norm does not operate very differently from other types of norms that people adhere

to (e.g. alcohol use; Borsari & Carey, 2003; food consumption; Mollen et al., 2016). In the United States, China and Indonesia, the more participants perceived the happiness norm the more they pursued happiness, suggesting that becoming aware of a societal norm to be happy motivates participants to strive for happiness. For Dutch participants, however, the association between the two variables was not statistically significant. It seems that their perception of happiness norm did not motivate them to pursue happiness. Although speculative, one explanation might be that the Dutch participants are very happy to begin with. They have been ranked as the world 6th happiest country among 153 countries by The World Happiness Report (Helliwell et al., 2020). Even among people who perceive a strong happiness norm, current contentment may prevent further motivation to pursue happiness.

We also observed that, in all countries except the United States, the happiness norm was directly associated with more subjective happiness. The more participants perceived the norm to be happy, the happier they were. Although we expected this association to be mediated by higher levels of happiness pursuit, we did not find much evidence for this (except in the United States and partly in China, where there was an indirect effect from the happiness norm to pursuit of happiness to subjective happiness). Finding evidence for mediation by the pursuit of happiness is not unimportant. After all, a mere relation between a happiness norm and subjective happiness could be the result of people judging themselves in line with the perceived norm.

The most consistent finding in this study was that in all countries, happiness pressure was negatively associated with subjective happiness. The more participants experienced the pressure to be happy, the less happy they were, which was in line with our prediction that experiencing a pressure to be happy might prevent its attainment. We predicted that the pursuit of happiness could explain the relation between the happiness pressure and subjective happiness. Indeed, the data in the United States were in line with this prediction: the more participants experienced the pressure to be happy, the less they pursued happiness, and in turn, the less happy they were. One possibility is that people who are not all that happy to begin with and who experience pressure may suffer from the belief that they do not live up to a norm. They may become insecure, and even less happy. Another possibility is that they experience reactance (Brehm & Brehm, 1981). It could be that people who experience a strong pressure to be happy may feel that they lose their freedom to

experience whatever feelings they have. This may motivate them to restore this freedom by resisting or acting counter to the enforced behavior, that is by resisting to pursue happiness, which in turn impeded their happiness. Of course, these interpretations are based on non-experimental research, leaving open other possibilities. It is possible that less happy people experience more pressure to be happy. Less happy people usually have low efficacy expectations (Maddux, 2012). They believe that they are less capable than other people to perform a particular action, and hence may avoid these actions (such as engaging in happiness-enhancing activities). Thus, any norm induction of the importance of happiness could be experienced as a strong pressure by less happy people.

Our findings provide additional evidence to the claim made by other researchers (Ford & Mauss, 2014; Mauss et al., 2011) that pursuing happiness could result in negative outcomes. The work of Mauss and her colleagues (2011) suggests that valuing happiness can lead to greater loneliness. Likewise, here we show that experiencing pressure to be happy may predict or at least be associated with lowered happiness. In the introduction, we implied that perceiving a happiness norm and experiencing pressure to be happy may go hand in hand. However, only in The Netherlands we found that these variables were positively correlated, such that Dutch participants experienced more pressure to the extent that they perceived a stronger happiness norm. The two variables were not associated in the United States and Indonesia. Interestingly, in China we found the opposite pattern, such that the more participants perceived happiness norm the less they experienced happiness pressure. It is somewhat difficult to interpret these different findings across countries. One explanation might have to do with China being a more restraint country as suggested by Hofstede (2011). Restraint stands for a society that controls gratification of needs and regulate it by means of strict social norms. In more restraint countries, people are more likely to think that what happens to them is not their own doing (Hofstede, 2011). Perhaps, even though they perceive a relatively strong happiness norm, Chinese participants are less likely to experience happiness pressure as a result of the norm because of the belief that their happiness is not in their own hands anyway.

Strengths, Limitations and Future Directions

Albeit with several potentially important and interesting inconsistencies across the countries, in general our findings demonstrated that the happiness norm and happiness pressure can be reliably measured, and are reliably associated with subjective happiness and the pursuit of happiness. An obvious limitation of this study is that the data are cross-sectional, and thus we cannot be sure of the causal relationship between a happiness norm, happiness pressure and the pursuit of happiness and subjective happiness. In future experimental and longitudinal research, the direction of these causal effects should be examined further.

While happiness research has focused strongly on personal circumstances and individual characteristics that contribute to or undermine personal happiness, very little is known yet about how societal norms about happiness are being perceived, what determines them, and how they may affect people's happiness. The present research was an initial exploration of these issues, and opens various avenues to examine additional questions. For example, what individual factors are associated with perceiving and adhering to the happiness norm? What cultural factors are associated with the happiness norm, e.g. in which societies is the happiness norm perceived particularly strongly? Does indulgence versus restraint of a culture and economic development play a role? What determines whether a happiness norm is perceived as pressure? Does happiness pressure lead to other negative consequences such as perceived stress and loneliness? The present findings, and the measures we developed, provide a springboard to further explore such questions, and should give us more insight into the broader question of how societal norms about happiness affect happiness.

Conclusions

The current study is one of the first studies to examine the role of societal norm to be happy on subjective happiness across a number of different societies. Reliable measures were developed to measure a happiness norm, happiness pressure and pursuit of happiness across various countries. The measures and these preliminary outcomes open an opportunity for further investigating the happiness norm and happiness pressure, and their determinants and consequences.

Appendix 1

Results of the Measurement Invariance Test

Happiness Norm Scale (HNS)

The test of configural invariance indicated several misspecifications in the model. After solving these misspecifications and re-estimating the model we continued to test the metric invariance; that is, we added equality constraints across the countries on the factor loadings of the same item (item number 1). Table 2 shows the factor loadings for each item across countries after the metric invariance test. The test indicated that two items (2 and 3) were not metric invariant in China, while item number 4 was not metric invariant in Indonesia. The results indicated that the Happiness Norm Scale was partial metric invariant.

Table 2

Within group standardized factor loadings of the Happiness Norm Scale.

Scale Items	NL	US	CH	IN
I think there is a norm in society that people should strive for happiness	.46	.56	.46	.46
I think that people in my social environment believe that everybody should try to be happy	.48	.55	.65†	.49
The norm in today's society is to be as happy as possible	.75	.83	.72†	.75
Society encourages people to strive for happiness	.71	.85	.62	.53†
It is as if the norm in society is that people ought to be happy	.76	.83	.42	.74

Note: NL = The Netherlands, US = United States, CH = China, IN = Indonesia. †Non-invariance estimates.

Happiness Pressure Scale (HPS)

After solving several misspecifications and re-estimating the model on the configural invariance test, we used item number 5 as the reference indicator in the metric invariance analysis, see Table 3. This table shows the factor loadings for each item across countries after metric invariance test. The test indicated that item number 1 in the United States and China, and item number 2 in Indonesia were not invariant. The results indicated that the Happiness Pressure Scale was partial metric invariant.

Table 3

Within group standardized factor loadings of the Happiness Pressure Scale

Scale Items	NL	US	CH	IN
I feel society's pressure to be happy.	.67	.50†	.33†	.51
Current society's emphasis on happiness makes me insecure.	.65	.71	.67	.99†
The idea that everybody should be happy bothers me.	.75	.87	.76	.58
I experience today's norm to be happy as a burden.	.83	.89	.77	.61
I am sometimes annoyed by current society's emphasis on happiness.	.74	.88	.81	.60

Note: NL = The Netherlands, US = United States, CH = China, IN = Indonesia. †Non-invariance estimates.

Pursuit of Happiness Scale (PHS)

After solving several misspecifications, the configural invariance test showed that the factor loadings were still very poor for several items. To solve the problem, we omitted 4 items that had factor loadings lower than .4 in most/all countries (i.e. item number 3, 6, 8, and 9, see the Supplementary Online Material) and left the other 5 items for further analysis. The factor loadings were, except for item 5 and 7 in China, acceptable (>.4). We decided to accept this solution and retained both items because they were still acceptable in the other countries. The metric invariance test, using item number 5 as the reference indicator, indicated that items number 1 and 2 in China were not metric invariant. The results indicated that the Happiness Pressure Scale was partial metric invariant. The final results of a metric invariance test for Pursuit of Happiness Scale are shown in Table 4.

Table 4
Within group standardized factor loadings of the Pursuit of Happiness Scale

Scale Items	NL	US	CH	IN
1. Feeling happy is extremely important to me.	.53	.59	.70†	.62
2. To have a meaningful life, I need to feel happy most of the time.	.53	.62	.74†	.50
3. I spend most of my time trying to be happy.	.73	.84	.42	.72
4. I often engage in activities that I believe will help me to feel happier.	.60	.81	.33	.64
5. I make strong efforts to feel happier than I am now.	.52	.69	.34	.59

Note: NL = The Netherlands, US = United States, CH = China, IN = Indonesia. †Non-invariance estimates.

Subjective Happiness Scale (SHS)

After solving some misspecifications indicated in the model, the results of a configural invariance test for Subjective Happiness Scale were rather acceptable, with the exception of the factor loading item number 4 in China. Metric invariance test, using item number 4 as the reference indicator, indicated that item number 1 and 2 in Indonesia were not metric invariant. The Subjective Happiness Scale is partial metric invariant (Table 5).

Table 5
Within group standardized factor loadings of the Subjective Happiness Scale

	Scale Items	NL	US	CH	IN
1.	In general I consider myself: (1) not a happy person – (7) a very happy person	.87	.93	.78	.76†
2.	Compared to most of my peers, I consider myself: (1) less happy – (7) more happy	.86	.88	.76	1.00†
3.	Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? (1) Not at all – (7) A great deal	.73	.83	.57	.54
4.	Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you? (1) Not at all – (7) A great deal	.62	.65	.40	.38

Note: NL = The Netherlands, US = United States, CH = China, IN = Indonesia. †Non-invariance estimates.

Supplemental Material

This section provides supplementary information to the studies presented in this chapter. We describe the development of new measurements of the happiness norm, happiness pressure, and the pursuit of happiness as a preliminary stage for achieving our main research objective, that is to examine the relationships between the happiness norm, happiness pressure, the pursuit of happiness, and subjective happiness among individualistic and collectivistic countries.

Study 1: Development of new scales

The first step of the development of the new scales was items selection procedure. We derived the concept of happiness norm, happiness pressure and happiness pursuit from published writings on social norms (i.e., Cialdini et al., 1990; Kallgren et al., 2000) and the pursuit of happiness (Lyubomirsky, Sheldon, et al., 2005; Mauss et al., 2011). We defined that a happiness norm is a belief that society emphasizes the importance of happiness thus demands people to be happy which may elicit pressure. Meanwhile, the pursuit of happiness is defined as the perceived importance of happiness and efforts to be happy.

We began with a pool of 44 items reflecting perceived social norm and pressure to be happy and the pursuit of happiness. Item reductions were done using several exclusion criteria. Our intention was to capture the general subjective experience of prescriptive norm and pressure to be happy and the extent to which people strive for happiness. Therefore, we excluded items covering descriptive and personal norms (e.g., "I want to be seen as a happy person") and items addressing very specific efforts of happiness pursuit (e.g., "I practice gratitude to make my life happier"). Finally, we omitted items that required a very advanced level of thinking as we wanted to reach a general adult population. The item reduction process resulted in the first version of the scales, which consisted of 7 items of the happiness norm scale, which included items measuring prescriptive norm and norm pressure, and 16 items of the pursuit of happiness scale, which included items measuring the importance of happiness and the striving for happiness.

Methods

Participants. Ninety-seven American adults were recruited from Amazon Mechanical Turk (MTurk) – an online marketplace for work – under the restriction that they were the United States residents. Participants' age ranged from 18 to 68 years old (M = 34.40; 66% male).

Procedure and Measures. Participants completed an online questionnaire consisted of the first version of the measures and a validated and widely used measure of happiness (i.e., Subjective Happiness Scale, Lyubomirsky & Lepper (1999). This is how these new measures correlate with subjective happiness. Participants were asked to indicate their level of agreement with each statement of the scales using a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), and were given compensation of 1 USD following their participation.

Data analysis. To explore the structure and the reliability of the new measurements, we conducted an Exploratory Factor Analysis (EFA) and a test of internal consistency following procedures suggested by Field (2009). The EFA was conducted on each measure separately.

Results

Happiness Norm Scale (HNS). The analysis of each items of the measures showed that 2 items had very low item-total correlations (< .3), indicating that they contributed to the relatively low reliability of the scale (α = *.59)*. Therefore, these items were excluded and a new reliability test using 5 items of happiness norm scale was conducted. This resulted in better internal consistency (α = *.73)*. An EFA using 5 items of happiness norm scale showed that the scale has 2 factors (eigenvalue > 1), namely Factor I: prescriptive norm (2 items) and Factor II: norm pressure (3 items). Prescriptive norm items and norm pressure items had adequate internal consistency (α = .81 and α = .75, respectively) and were significantly correlated to each other (r = .30, p < .01). Moreover, Factor I (prescriptive norm) was positively correlated with subjective happiness (r = .26, p < .01) and Factor II (norm pressure) was negatively correlated with subjective happiness scale (r = -.23, p < .05). These opposite correlations of the two factors with subjective happiness may imply that these factors were measuring different concepts, therefore at this phase we decided to separate both factors into two different scales, namely the happiness norm scale and the

happiness pressure scale. As the number of items for each scale was very low, we included additional items measuring the same constructs to the new scales, while maintaining the wording similarity with the existing items. This procedure resulted in 5 items Happiness Norm Scale and 5 items of Happiness Pressure Scale to be used in our follow-up study.

Pursuit of Happiness Scale (PHS). Item analysis showed that all items had adequate item-total correlation (> .3), indicating that they were relevant to measuring the concept. The internal consistency was high (α = *.90)*. An EFA showed that the scale had 4 factors (eigenvalue > 1). At this phase we decided to select items based on the following criteria: 1) all items that loaded onto the factor that contributed most to explaining the concept, that is Factor I (explaining 42.8% of the total variance); and 2) items that had high item-total correlations and conceptually represented our definition of the pursuit of happiness. This procedure resulted in 9 items of the Pursuit of Happiness Scale. Using the new set of 9 items, we conducted another reliability test. Results showed that the internal consistency of the new scales was high (α = *.90)* with sufficient item-total correlations in all items (> .3). An EFA resulted in single-factor loading which explained 56.3% of the pursuit of happiness.

Conclusion

In Study 1 we developed 3 new scales measuring the level of perceived social norm to be happy (i.e., 5-items Happiness Norm Scale, HNS), perceived pressure to be happy (i.e., 5-items Happiness Pressure Scale, HPS), and the perceived pursuit of happiness (i.e., 9-items Pursuit of Happiness, PHS).

Study 2: The structure, validity and reliability of the scales

To explore the structure, validity and reliability of the final version of the new measurements, we conducted an Exploratory Factor Analysis (EFA), a test of internal consistency and a concurrent validity test following procedures suggested by Field (2009).

Methods

Participants. The new scales derived from Study 1 were completed by 254 university students from the United States, recruited from Amazon Mechanical Turk (MTurk) – an online marketplace for work – under the restriction that they were the United States residents. Participants age ranged from 18 to 45 years old (M = 24.54; 38.2% male).

Procedure and Measures. Participants completed an online questionnaire and were given compensation of 1 USD following their participation. The questionnaire consisted of 5 items of Happiness Norm Scale, 5 items of Happiness Pressure Scale, 9 items of Pursuit of Happiness Scale derived from previous study, and 4 items of Subjective Happiness Scale (Lyubomirsky and Lepper 1999). To test the concurrent validity of the new scales we also included other measures such as Perceived Stress Scale (Cohen et al., 1983), Loneliness Scale (Hughes et al., 2004), and Rumination Scale (Treynor et al., 2003).

Results

Prior to a principal factor analysis (PCA) we tested the sampling adequacy and sphericity. The Kaiser-Mayer-Olkin measure on each measure verified a good sampling adequacy for the analysis (all KMO's > .79) and all KMO values for individual items were > .75, which is well above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity indicated that correlations between items on each scale were sufficiently large for PCA (i.e. χ^2_{HNS} (10) = 646.18, χ^2_{HPS} (10) = 778.6, χ^2_{PHS} (36) = 935.06; all p's <.001). The results of a PCA on the items of each measures are discussed below.

Happiness Norm Scale (HNS). A PCA was conducted to obtain eigenvalues for each component in the data. One component had eigenvalues over Kaiser's criterion of 1 and explain 65% of the variance. The scree plot also showed a single-factor solution. On the factor derived from PCA, the average factor loading was 0.80. Inspection of the item-level statistics indicates that all items loaded above .30. Reliability analysis suggests that the scale has an adequate internal consistency (α = .86). The HNS is positively correlated with Subjective Happiness Scale (r = .14), and negatively correlated with Perceived Stress Scale (r = -.17).

Happiness Pressure Scale (HPS). The 5 items HPS measures the extent to which individuals experience negative feelings or thoughts toward society's emphasis on happiness. One component had eigenvalues over Kaiser's criterion of 1 and explain 69.16% of the variance with average factor loading of .83. The scree plot confirmed this single-factor solution. The item-level statistics indicates that all items loaded above .30. Reliability analysis suggests that the scale has an adequate internal consistency (α = .88). The HPS is negatively correlated with Subjective Happiness Scale (r = -.49), and positively correlated with Loneliness Scale (r = .45), Perceived Stress Scale (r = .53), and Rumination Scale (r = 40).

Pursuit of Happiness Scale (PHS). A PCA showed that 2 components had eigenvalues over Kaiser's criterion of 1 and cumulatively explain 59.94% of the variance. Inspection of the scree plot reveals a two-factor solution. The first factor was loaded with items indicated the efforts to pursue happiness, average factor loading was .69. The second factor was loaded with items indicated the importance of happiness, average factor loading was .77. The item-level statistics show all items loaded above .30. Reliability analysis suggests that the scale has an adequate internal consistency (α = .86). The PHS is correlated positively with Subjective Happiness Scale (r = .40), and negatively correlated with Loneliness Scale (r = -.22) and Perceived Stress Scale (r = -.26).

Conclusion

We developed 3 new measurements, namely the Happiness Norm Scale, the Happiness Pressure Scale, and the Pursuit of Happiness Scales. These measurements are reliable and showed adequate concurrent validity. The final versions of the measurements are shown below.

The Happiness Norm Scale

Instruction:

"For the next several questions, please indicate your level of agreement with each statement by selecting the number on the rating scale that best describes the way you think or feel about your social environment."

Items:

1. I think there is a norm in society that people should strive for happiness.
2. I think that people in my social environment believe that everybody should try to be happy.
3. The norm in today's society is to be as happy as possible
4. Society encourages people to strive for happiness
5. It is as if the norm in society is that people ought to be happy

Responses:

The response scale is ranged from 1 = *strongly disagree* to 7 = *strongly agree*.

The Happiness Pressure Scale

Instruction:

"For the next several questions, please indicate your level of agreement with each statement by selecting the number on the rating scale that best describes your experience about being happy."

Items:

1. I feel society's pressure to be happy.
2. Current society's emphasis on happiness makes me insecure.
3. The idea that everybody should be happy bothers me.
4. I experience today's norm to be happy as a burden.
5. I am sometimes annoyed by current society's emphasis on happiness.

Responses:

The response scale is ranged from 1 = *strongly disagree* to 7 = *strongly agree*.

The Pursuit of Happiness Scale

Instruction:

"The next several questions have to do with your happiness. For these questions, please indicate your level of agreement with each statement by selecting the number on the rating scale that best describes what you generally think and do."

Items:

1. Feeling happy is extremely important to me
2. To have a meaningful life, I need to feel happy most of the time.
3. I rarely think about my happiness. (-)
4. I spend most of my time trying to be happy.
5. I often engage in activities that I believe will help me to feel happier.
6. Most of the time, I stay away from situations that make me feel unhappy.
7. I make strong efforts to feel happier than I am now.
8. I rarely attempt to make my life happier. (-)
9. I think there is no use of trying to feel good all the time. (-)

Responses:

The response scale is ranged from 1 = *strongly disagree* to 7 = *strongly agree*.
Note: Item number 3, 8 and 9 are reverse scored items

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Chapter 3

Interpersonal Liking and Envy toward Others' Happiness: Evidence for the Desirability of Happiness*

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Abstract

The present research examined whether happy people are liked more and envied more than unhappy people, and whether this effect is moderated by the happiness level of the perceiver. Specifically, we tested whether people generally like happy people more than unhappy people, or whether people like others more when they are similar in happiness level (as the similarity hypothesis would predict). In three studies, we assessed participants' own happiness level, and asked them to evaluate a target person in terms of liking and envy, based on a person-description that was experimentally varied in the level of happiness. Results showed that happy people were liked and envied more than unhappy people, and this effect was not moderated by participants' own happiness level, showing no evidence for the similarity effect. Importantly, it was particularly *unhappiness* that was evaluated negatively, and additional findings demonstrated that fear of emotional contagion was driving this effect. These findings are discussed in terms of the important role of perceived happiness in person-judgment.

Keywords: person perception, subjective well-being, interpersonal attraction

Introduction

People are naturally motivated to pursue happiness (K. H. Howell et al., 2016), in part because happiness is associated with many advantages in various life domains, including greater physical health, satisfying social relationships, superior work outcomes, and more energy and flow (see Lyubomirsky, Sheldon, & Schkade, 2005 for a review). Moreover, research shows that happy individuals tend to be more positively appraised by others, for example, people believe that a happy person is physically more attractive (Diener et al., 1995; Mathes & Kahn, 1975), intelligent, competent, more socially skilled (Diener & Fujita, 1995), as well as more friendly, warm, and assertive (Schimmack et al., 2004). Previous research also demonstrated that people who smile and laugh (i.e., expressions of happiness, at least for the moment) are evaluated more positively than people who do not (e.g., Lau, 1982; Mehu, Little, & Dunbar, 2007; Reysen, 2006). Similarly, social interactions with happy as compared to unhappy people run more smoothly and induce more positive affect in interaction partners (cf. Coyne 1976a; 1976b).

Although another person's happiness is associated with various positive outcomes, it is not clear whether people actually like happy others more than unhappy others. This intuitive prediction has not been tested directly. Importantly, although this prediction may seem straightforward at first glance, the link between happiness and liking may be more complicated when considering previous research on the role of *similarity* on liking. Similarity principles suggest that people tend to like similar others (Byrne 1961; Montoya, Horton, & Kirchner 2008). This similarity effect has been found in many domains, indicating that we tend to prefer and like others who are similar to us with regard to our own attitudes (e.g., Byrne, Bond, & Diamond, 1969; Singh et al., 2017), personality characteristics (e.g., Byrne, Griffitt, & Stefaniak, 1967; Park & Lennon, 2008), socio-economic background (e.g., Byrne, Clore, & Worchel, 1966), physical attractiveness (e.g., Stevens, Owens, & Schaefer, 1990; van Straaten, Engels, Finkenauer, & Holland, 2009), preference for activities, music, religion, ethical views (e.g., Launay & Dunbar, 2015; Werner & Parmelee, 1979), and so on.

Does the similarity principle also apply to happiness? Is it the case that happy people like happy others more than unhappy others, whereas unhappy people

like unhappy others more than happy others? In the current research, we examined these two possible alternative hypotheses: People like happy others more than unhappy others, irrespective of one's own level of happiness (i.e., Hypothesis 1: happiness-leads-to-liking), or alternatively, the effect of happiness on liking is moderated by one's own level of happiness, such that happy people like happy others more than unhappy others, whereas unhappy people like unhappy others more than happy others (i.e., Hypothesis 1alt: own-happiness-moderation).

In addition to more liking, people may be more envious towards happy versus unhappy others. Envy stems from a process of upward social comparison. It arises when "a person lacks another's superior quality, achievement, or possession, and either desires it or wishes that the other lacked it" (Parrott & Smith, 1993, p. 906). It can be reduced by narrowing the gap between oneself and the other. As proposed by Van de Ven, Zeelenberg, and Pieters (2009), there are two types of envy: benign and malicious envy. Benign envy is experienced when people like and admire someone, want to be closer to this person, and want to improve their own position by moving up. Malicious envy, on the other hand, is experienced when people feel frustrated by the superiority of someone, think that the other does not deserve it, are more willing to do harm, and hope that the other would fail. In the current research, we focus on benign envy, and predicted that people would experience benign envy toward happier others. If people indeed are naturally motivated to pursue happiness (K. H. Howell et al., 2016), instead of wanting a more happy person to be unhappy (i.e. malicious envy), they should 'want to be like' the other person who is more happy than themselves (i.e. benign envy). While the effect of perceived happiness on liking may or may not be independent of one's own level of happiness, as proposed in Hypotheses 1 and 1alt, we suggest that the effect of perceived happiness on envy should depend on one's own happiness, given that envy by definition results from a process of social comparison. Hence, we hypothesized that unhappy people should envy happy others more as compared to people who are happy themselves (Hypothesis 2).

In sum, the present research examines the effect of a target person's happiness on liking for the target irrespective of people's own level of happiness (Hypothesis 1), and alternatively, as moderated by people's own level of happiness (Hypothesis 1alt). In addition, we examine whether a happy versus an unhappy target evokes more benign envy, particularly among people who are not very happy

themselves (Hypothesis 2). In three studies, we assessed people's own level of happiness and then asked them to evaluate a person in terms of liking and envy, based on a person-description implying that the person is either happy or unhappy (or a control target about whom no information about happiness was given in Study 1).

In addition to testing our central predictions, the current research addresses a few additional issues. First, while some previous research findings suggest that people tend to respond positively to happy people (e.g., towards a smiling person, Lau, 1982, and a laughing person, Reysen, 2006) the detrimental effects of *unhappiness* on interpersonal liking may stand out more strongly. For example, previous research showed that depressed people tend to be disliked (e.g., Vernberg, 1990; Zimmer-Gembeck, Waters, & Kindermann, 2010), and based on the general notion that "bad-is-stronger-than-good" (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), the effects of unhappiness on disliking may be stronger than the effects of happiness on liking. We address this issue in Study 1.

Second, we aimed to test the robustness of our hypothesized 'happy people are liked-effect' (or, for short, the happiness-liking effect) and to see whether happiness versus unhappiness in a target would affect liking even when crossed with other characteristics that have been found to affect interpersonal liking. For instance, previous studies found that disabled people are often evaluated negatively by others, and encounters with them evoke negative emotions (e.g., Livneh, 1982; Vilchinsky, Findler, & Werner, 2010). People would generally envy and perhaps like a disabled person less than a non-disabled person. Similarly, previous research has indicated that people strive for wealth (e.g., Argyle, 2001; Weimann, Knabe, & Schob, 2015), and generally tend to like and envy the rich more than the poor (e.g., Fiske, 2010; Horwitz & Dovidio, 2017). An interesting question is whether the level of happiness of a disabled or non-disabled, and of a rich or poor person, would override any possible effects of physical health and wealth on liking and envy. Specifically, do people like and envy a happy person more than an unhappy person, irrespective of whether the person is non-disabled or disabled (which we test in Study 2), and irrespective of whether the person is wealthy or poor (which we test in Study 3)? Testing these predictions would give further insight into the potentially powerful effects of happiness versus unhappiness on interpersonal liking and envy.

Finally, in Studies 2 and 3, we attempted to gain a better understanding of *why* happiness affects liking, thereby focusing on two possible mechanisms. As we will explain in more detail in the introduction to Study 2, people who have a strong sense that the world is a just place where people get what they deserve (i.e., Belief in a Just World, BJW; Lerner, 1980) may be especially prone to the happiness-liking effect as they may think that happy people are happy because they are good (and thus likable), and unhappy people are unhappy because they are bad (and thus dislikeable). In Study 3, we tested another potential mechanism, namely that people like happy others and conversely dislike unhappy others because (un)happiness may be perceived as contagious (cf. Coyne, 1976a). People may want to be influenced by others' happiness but do not want to be contaminated with another person's unhappiness, and thus, they may dislike unhappy others more than happy others. Furthermore, this effect of perceived happiness on the so-called fear of emotional contagion may be stronger in people high (versus low) in their tendency to mirror others' emotion (i.e., emotional contagion susceptibility). After all, and we will explain this in more detail below, only a person who takes over the emotions of others relatively easily (i.e. someone high in emotional contagion susceptibility; cf. Hsee et al., 1990) should fear that another person's unhappiness may infect him or her.

Study 1

In Study 1 we hypothesized that happy people are evaluated more positively by others than unhappy people (Hypothesis 1). Happiness is highly valued not only in one's own life but also in the life of other people (Veenhoven, 2009), and this may be independent of one's own happiness. Alternatively, it is also possible that the evaluation of others depends on similarity principles (i.e., people's tendency to like similar others). If this is true, happy people should evaluate happy others more positively than unhappy others, and unhappy people should evaluate unhappy others more positively than happy others (Hypothesis 1alt). In addition, we predicted that happy people evoke more envy than unhappy people, particularly among others who are not very happy themselves (Hypothesis 2).

Method

Participants

One hundred and fifteen US citizens (57% male, age ranged 19 – 67 years old, *M* = 35.49, *SD* = 10.74) were recruited via Amazon Mechanical Turk. Participants' self-reported ethnic background was 78% White, 10% Asian, 7% African American, 3% Hispanic, and 2% mixed. Participants reported a range of educational backgrounds: 47% had a bachelor degree, 15% an associate degree, 15% a master's degree, 13% completed high school, 4% a doctoral degree, 4% a certificate or diploma, 1% an advanced degree, and 1% did not complete high school. Participants' self-reported work life was 55% full-time employee, 10% part-time employee, 10% self-employed, 9% unemployed, 7% student, and 9% either retired, homemaker or other.

Procedure

Participants were asked to participate in a two-part online study. The first and the second part were given 2 to 10 days apart. The first part of the study consisted of several measures and demographic questions. The primary experimental task was administered during the second part of the study. Participants received $0.5 upon completion of each part adding up to $1 in total. A general description of what was expected from participants was posted on www.mturk.com. Informed consent was obtained from all individual participants included in the study. After providing informed consent, participants received the link to the first part of the study.

In the first part, participants were asked to complete a set of questionnaires including the Subjective Happiness Scale to examine individual differences in perceived own happiness (Lyubomirsky & Lepper, 1999). At the end of the questionnaire, they were asked to provide demographic information (i.e., age, sex, ethnicity, work life, and educational background). In the second part, participants were randomly assigned to one of three conditions. In each condition, they were asked to read a brief description of a target person called Bob. The target's happiness was systematically varied (i.e., a happy Bob, an unhappy Bob, and a neutral Bob; see Supplementary Materials for the target's descriptions). Following this, participants

were asked to evaluate the target person on likeability and perceived envy for the target. Finally, as a manipulation check, they were also asked to rate the target person's happiness level.

Materials

The Subjective Happiness Scale is "a global, subjective assessment of whether one is a happy or an unhappy person" (Lyubomirsky & Lepper, 1999, p. 139). The scale consists of four items. Instructions require participants to indicate the way they perceive their level of happiness on a 7-point Likert scale (e.g., "In general I consider myself (1) not a happy person to (7) a very happy person"; Cronbach's α = .88). For exploratory reasons, we included other individual differences measures: the Trait Depression Scale (Spielberger, 1995 as cited in Krohne, Schmukle, Spaderna, & Spielberger, 2002), the Happiness Norm Scale, the Happiness Pressure Scales, and the Pursuit of Happiness Scale (Kumalasari et al., under review). For the sake of brevity and the goals of the current paper, we will not further report on these additional measures. To be sure, none of these measures moderated any effects we report below.

We measured the target's *likeability* using four items of the 11-items Reysen Likeability Scale which represent liking (Reysen, 2005; e.g., "Bob is friendly", "Bob is likeable"). Responses for each item was on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree; Cronbach's α = .96). *Benign envy* was measured with participants' level of agreement with two items (i.e., "I would like to live like Bob", and "Bob is one of those people that I would like to trade places with") on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree; Cronbach's α = .83). These two items were created based on the definition of benign envy (Parrott & Smith, 1993).

Results[1]

The manipulation check revealed that the target descriptions were effective in affecting the target's perceived level of happiness, $F(2, 112) = 71.37$, $p < .001$, $\eta_p^2 = .56$. Participants rated the happy target ($M = 5.54$, $SD = 1.09$) as happier than the neutral target, $M = 4.93$, $SD = 0.97$, $t(112) = 2.47$, $p = .02$, and the neutral target as happier than the unhappy target, $M = 2.68$, $SD = 1.21$, $t(112) = 9.04$, $p < .001$.

Target's happiness, participants' happiness, and target's likeability.

To test the prediction (Hypothesis 1) that the target's happiness levels would affect likability, a one-way ANOVA was conducted with the target's happiness levels (i.e., happy, neutral, and unhappy) as the independent variable, and likability as the dependent variable. The analysis revealed a significant effect of the target's happiness levels on likability, $F(2, 112) = 40.91$, $p < .001$, $\eta_p^2 = .42$. As predicted, the happy target, $M = 5.52$, $SD = 0.82$, was rated as more likeable than the neutral target, $M = 4.96$, $SD = 0.81$, $t(112) = 2.80$, $p = .006$, $d = 0.69$, and the unhappy target, $M = 3.74$, $SD = 1.00$, $t(112) = 8.82$, $p < .001$, $d = 1.95$. The neutral target was rated as more likable than the unhappy target, $t(112) = 6.17$, $p < .001$, $d = 1.34$.

We hypothesized that the pattern of differences between target's happiness levels in likability may depend on participants' subjective happiness (i.e., Hypothesis 1alt). To test this prediction, we conducted a moderated multiple regression using Model 1 PROCESS macro (v3.4; Hayes, 2018) on SPSS. The analysis tests the effects of the focal independent variable target's happiness (X) and the moderator variable participants' happiness (M), and the effect of two-way interactions of participants' happiness by target's happiness (XM) on likability. The continuous predictor participants' happiness was centered prior to analysis (M`). The categorical predictor target's happiness was coded using the Helmert coding that generated regression coefficients estimating: 1) the mean difference in likability between the unhappy

[1] The raw data of the studies reported in this manuscript are available at a public repository the Open Science Framework (https://osf.io/92z3h/?view_only=d2056037373a46a281ad206f287e3d59).

target and the unweighted[2] mean of neutral and happy target (X_1), and 2) the difference in likability between the means of neutral target and happy target (X_2) (Hayes & Montoya, 2017). The interaction terms were computed by multiplying each code of target's happiness levels with centered participants' happiness ($X_1M`$ and $X_2M`$).

The analysis revealed that the predicted interaction between participants' happiness and target's happiness on likability was not significant, R^2-*change* = .01, $F(2, 109) = 0.35$, $p = .71$. The mean likability of unhappy target as compared to the mean likability of neutral and happy target was not significantly differ as a function of participants' level of subjective happiness, $B_{X1M`} = 0.18$, 95% CI = [-0.26, 0.61]. Similarly, the difference between mean likability of the neutral target and happy target did not depend on participants' level of subjective happiness, $B_{X2M`} = -0.05$, 95% CI = [-0.43, 0.33]. Contrary to the similarity hypothesis, the effect of target's happiness levels on likability was not moderated by participants' own level of subjective happiness.

Target's happiness, participants' happiness, and envy toward the target.

Another one-way ANOVA was conducted with envy as the dependent variable. Results show that the target's happiness had a significant effect on envy, $F(2, 112) = 17.51$, $p < .001$, $\eta_p^2 = .24$. The happy target evoked more envy, $M = 4.01$, $SD = 1.21$, than the unhappy target, $M = 2.44$, $SD = 1.19$, $t(112) = 5.51$, $p < .001$, $d = 1.31$, and the unhappy target evoked less envy than the neutral target, $M = 3.73$, $SD = 1.29$, $t(112) = 4.64$, $p < .001$, $d = 1.04$. However, the happy versus the neutral target were not significantly different, $t(111) = .97$, $p = .33$, $d = 0.22$.

The analysis to test the two-way interactions of participants' happiness by target's happiness on envy (i.e., Hypothesis 2) was similar to the one in the previous section. Not supporting Hypothesis 2, the analysis revealed a non-significant two-way interaction of participants' happiness by target's happiness on envy, R^2-*change* = .03, $F(2, 109) = 1.58$, $p = .21$. The mean envy of unhappy target as compared to the

[2] The target's happiness groups had unequal sample sizes ($n_{happy} = 37$, $n_{unhappy} = 38$, $n_{neutral} = 40$). Applying Helmert codes allow means to be combined but unweighted, so that the differences in group sample sizes are ignored in the construction of the combined mean (Hayes & Montoya, 2017; p. 6).

mean envy of neutral and happy target was did not significantly differ as a function of participants' level of subjective happiness, B = 0.45, 95% CI = [-0.06, 0.95]. Again, the difference between mean envy of neutral target and happy target did not depend on participants' level of subjective happiness, B = -0.14, 95% CI = [-0.80, 0.53]. Thus, we found no support for the hypothesis that envy toward different levels of others' happiness depended on one's own level of happiness. Instead, irrespective of one's own level of happiness, participants were significantly more envious towards happy as compared to unhappy targets. Finally, a Pearson product-moment correlation coefficient was computed to assess the relationship between envy and liking toward the target, and revealed a significant correlation between the two variables, $r(113)$ = 0.59, $p < .001$.

In sum, the findings of Study 1 provide strong support for the hypothesis that people show more liking and envy for a happy person than for a neutral and an unhappy person. An unhappy person was liked less and envied less as compared to a neutral person. In fact, the effect size when comparing unhappy versus neutral was twice as a large as the effect size when comparing happy versus neutral (we return to this issue in the General Discussion). Importantly, and contrary to the similarity hypothesis, these strong effects of target's happiness occurred irrespective of people's own happiness level. Thus, similarity in happiness does not seem to lead to more, or less, liking. Moreover, happiness does induce envy, but not more so for people relatively low versus high in happiness, as we had hypothesized.

Study 2

In Study 2 we explored whether the effects of a target person's happiness on liking and envy is influenced by the target person's physical health. In Study 1 we found that the effects of a person's happiness on liking and envy for the person were strong (η_p^2's > .14), and we wanted to investigate whether these strong effects of happiness can override the effects of physical health. Specifically, we examined whether people would still like and envy a happy person more than an unhappy person irrespective of the person's physical health (i.e., non-disabled or disabled). Previous studies have shown that people tend to evaluate physically healthy people more positively than unhealthy people (Chan et al., 2009). Therefore, we added a

physical health condition to the target person's description, so that the target was described as either non-disabled and happy, non-disabled and unhappy, disabled and happy, or disabled and unhappy.

In this study, we also aimed to better understand why happiness affects liking, and conversely, why unhappiness affects disliking. As Just World Theory (Lerner, 1980) suggests, people tend to believe that the world is a just place, that people get what they deserve, and that bad things happen to bad people and good things to good people. People who have a strong belief in a just world may think that happy people deserve to be happy because they are good and thus likable, and unhappy people deserve to be unhappy because they are bad and thus dislikeable. We, therefore, reasoned that the effect of a person's happiness on liking for the person should be particularly strong for people high (versus low) in belief in a just world (i.e., Hypothesis 3: moderation-by-belief in a just world).

Method

Participants

One hundred and seventy-seven US citizens (54% male, age ranged 18 – 76 years old, M = 34.86, SD = 12.56) from Amazon Mechanical Turk participated in the study. Participants' self-reported ethnic background was 75% White, 13% Asian, 6% Hispanic, 4% African American, and 2% mixed. They reported a range of educational backgrounds: 48% had a bachelor degree, 24% completed high school, 18% an associate degree, 3% a master's degree, 3% a certificate or diploma, 2% an advanced degree, 1% a doctoral degree, and 1% did not complete high school. Participants' self-reported work life was 46% full-time employee, 13% self-employed, 12% part-time employee, 10% unemployed, 7% student, 5% homemaker, 3% retired, and 4% other.

Procedures and Materials

As in the previous study, we conducted Study 2 in two parts. In the first part, along with the other measurements (including the Subjective Happiness Scale as measured in Study 1; Cronbach's α = .94), participants completed an 8-items Belief

in a Just World Scale (BJW; Lucas, Zhdanova, & Alexander, 2011), e.g., "People usually receive the outcomes that they deserve") that measures their belief in a just world using 7-point Likert scales (1 = *strongly disagree*, 7 = *strongly agree;* Cronbach's α = .96). In the second part, participants were randomly assigned to one of the four target person conditions of a 2 happiness (happy vs. unhappy) x 2 physical health (non-disabled vs. disabled) factorial design (see Supplementary Materials for the detailed target's descriptions). Following this, participants were asked to evaluate the target based on Likability (Cronbach's α = .97) and Envy (Cronbach's α = .84). As a manipulation check, participants were also asked to rate the target's happiness (i.e., "How happy do you think Bob is in general?")[3].

Results

The manipulation check showed that participants assigned a significantly higher happiness level to the happy target, M = 5.56, SD = 1.02, than to the unhappy target, M = 2.93, SD = 1.06; $F(1, 173) = 290.67$, $p < .001$, $\eta_p^2 = .63$, indicating that the target descriptions were successful in differentiating the happy from the unhappy target.

Target's happiness, target's physical health, participants' happiness, and target's likeability

To test Hypothesis 1, we conducted a moderated multiple regression using Model 1 PROCESS macro (v3.4; Hayes, 2018) on SPSS. This model tests the effect of focal independent variable target's happiness (X) and the moderator variable target's physical health (M) on the dependent variable target's likability. The dichotomous target's happiness and target's health were coded 0 (i.e., unhappy target, disabled target) and 1 (i.e., happy target, non-disabled target) prior to analysis. Results showed a significant effect of target's happiness, B = 1.37, 95% CI = [0.97, 1.78], a non-significant effects of target's physical health, B = -0.12, 95% CI = [-0.56, 0.32],

[3] For exploratory reasons we also measured target's deservedness using 2 items, namely "To what extent do you think Bob is responsible for his own happiness?" and "To what extent do you think Bob is able to determine his own happiness?" (Cronbach's α = .95). However, there are no significant effects of target's happiness and physical health on deservedness. For the sake of brevity, we do not report the results in the paper.

and a non-significant interaction, *B* = 0.39, 95% CI = [-0.17, 0.96], on likability. These outcomes support the results of Study 1 that participants liked the happy target, *M* = 5.52, *SD* = 0.83, more than the unhappy target, *M* = 3.95, *SD* = 1.04. These effects occurred irrespective of the physical health of the target. We did not replicate previous research findings that have suggested that people tend to like physically healthy persons more than physically unhealthy persons (e.g., Chan et al., 2009).

We examined Hypothesis 1alt by conducting a moderated moderation analysis using Model 3 PROCESS macro. This model tests the first order effects of target's happiness (X), target's health (M), and participants' happiness (W), the lower order interactions (XM, XW, and MW), and the higher order interaction (XMW). The continuous predictor participants' level of subjective happiness (W) was mean centered prior to analyses. The two-way and three-way interactions, if attainable, were probed by employing the pick-a-point approach to the continuous variable participants' happiness (Hayes, 2013). This procedure allows us to test the effect of target's happiness and target's health on likability at different levels of participants' happiness. We used one standard deviation below the mean, the mean and one standard deviation above the mean to represent "low", "moderate", and "high" levels of participants' level of subjective happiness, respectively. Moreover, the regression models were estimated using HC3 estimators that does not assume homoscedasticity (see Hayes & Cai, 2007 for review) to improve the validity and power of the tests (this method was used in all three-way interaction in Model 3 PROCESS macro throughout this research).

Results show that the three-way interaction between target's happiness, target's physical health and participants' happiness on target's likability was not significant, *B* = 0.05, 95% CI = [-0.32, 0.43]. There were also no significant two-way interactions between the target's happiness and health, *B* = 0.33, 95% CI = [-0.23, 0.90], and between the target's health and participants' happiness, *B* = -0.03, 95% CI = [-0.19, 0.18], on target's likability.

We found, however, a marginally significant two-way interaction between target's happiness and participants' level of subjective happiness, *B* = 0.19, 95% CI = [0.00, 0.38]. Further analysis of this two-way interaction using Model 1 PROCESS macro revealed that the effect of target's happiness on likability was significantly stronger at the higher level of participants' happiness, *B* = 1.90, 95% CI = [1.47, 2.33],

rather than at the lower level of participants' happiness, *B* = 1.29, 95% CI = [.96, 1.63]. Looking at the interaction differently, the effect of participants' happiness on likability was only significant within the happy target, *B* = 0.15, 95% CI = [0.04, 0.25], but not within the unhappy target, *B* = -0.05, 95% CI = [-0.20, 0.09]. There was no evidence of significant first order effects of target's health, *B* = -0.14, 95% CI = [-0.57, 0.29], and participants' happiness, *B* = -0.04, 95% CI = [-0.22, 0.14]. However, consistent with Study 1 findings the analysis revealed a significant effect of target's happiness on likability, *B* = 1.42, 95% CI = [1.012, 1.83].

In sum, Study 2 confirmed Hypothesis 1 and the findings of Study 1 that people like a happy person more than an unhappy person. This effect occurred regardless of the conditions of the person's physical health. We did find that the happier the participants, the more they like a happy person as compared to an unhappy person, providing initial support for Hypothesis 1alt (see Figure 1).

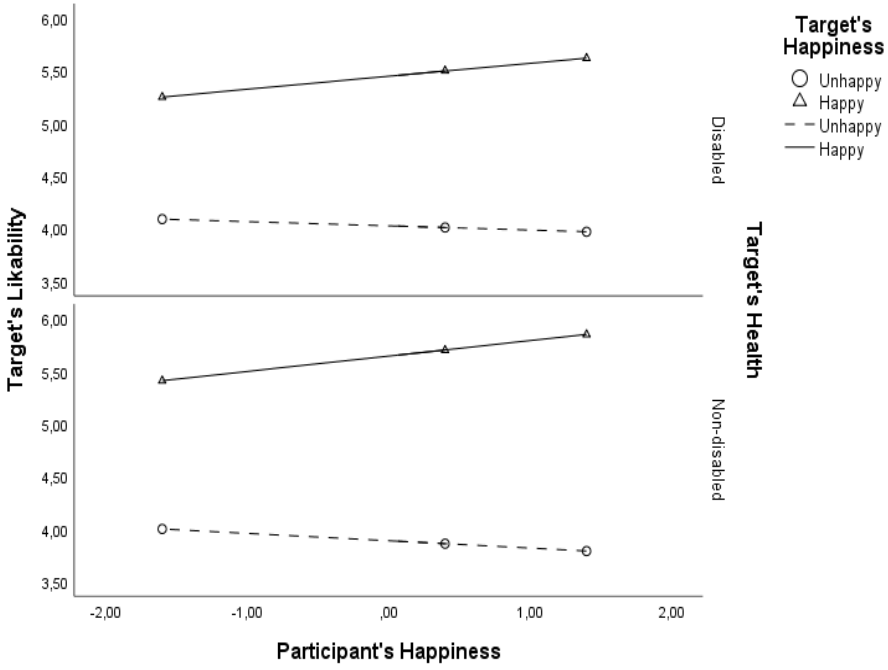

Figure 1: Target's likability as function of target's happiness levels, target's physical health, and participants' levels of happiness

Target's happiness, target's physical health, participants' happiness and envy toward the target

Similar to the previous analysis, we conducted a moderated multiple regression to test the effect of focal independent variable target's happiness (X) and the moderator variable target's physical health (M) on the dependent variable envy toward the target. Results showed a significant effect of target's physical health, *B* = 0.77, 95% CI = [0.24, 1.31] and a non-significant effect of target's happiness, *B* = 0.39, 95% CI = [-0.13, 0.91] on envy. These effects were qualified by a significant interaction between both variables, *B* = 1.00, 95% CI = [0.22, 1.79]. Interestingly, although there was no evidence for the first order effect of target's happiness on envy, the effect of happiness on envy was significant within the non-disabled target, *B* = 1.40, 95% CI = [0.81, 1.89], but not within the disabled target, *B* = 0.39, 95% CI = [-0.13, 0.91]. The happy non-disabled target was envied more than unhappy non-disabled target, while both the happy and unhappy disabled targets were relatively less envied. Indeed, the non-disabled target (regardless of whether he was happy or unhappy) was envied more than his disabled counterpart, even more so when he was happy (as compared to unhappy). This effect was shown in the significant effect of the target's physical health within both the happy target, *B* = 1.78, 95% CI = [1.21, 2.35], and the unhappy target, *B* = 0.77, 95% CI = [0.24, 1.31].

To test the effect of participants' happiness on the relationship between target's happiness and target's health on envy, a moderated moderation analysis was conducted using Model 3 PROCESS macro (v3.4). Results did not reveal a three-way interaction between target's happiness, target's physical health, and participants' happiness on envy, *B* = 0.10, 95% CI = [-0.37, 0.57]. There was no evidence of two-way interactions between target's happiness and participants' happiness on envy, *B* = 0.10, 95% CI = [-0.23, 0.43]. However, similar to previous analysis, we found a two-way interaction between target's happiness and target's physical health, *B* = 0.97, 95% CI = [0.18, 1.76]. The results of a two-way interaction analysis to examine the conditional effect of each variable on envy have been explained in the previous paragraph.

We also found a two-way interaction between participants' happiness and the target's physical health, *B* = -0.41, 95% CI = [-0.72, -0.10]. Further analysis to unpack this interaction revealed that a non-disabled target was envied more than a

disabled target, and this effect was significantly stronger among participants relatively low in happiness, *B* = 1.76, 95% CI = [1.27, 2.26], than among participants relatively high in happiness, *B* = 0.78, 95% CI = [0.18, 1.39]. Moreover, the effect of participants' happiness was only significant within the non-disabled target, *B* = -0.32, 95% CI = [-0.51, -0.13], but not within the disabled target, *B* = -0.003, 95% CI = [-0.16, 0.15]. Participants with relatively low happiness, as compared to participants with relatively high happiness, were more envious toward the non-disabled target. However, they indicated similar and relatively low envy toward the disabled target regardless of their happiness level. Similar to Study 1, envy and liking toward the target is positively correlated, $r(172) = 0.44$, $p < .001$.

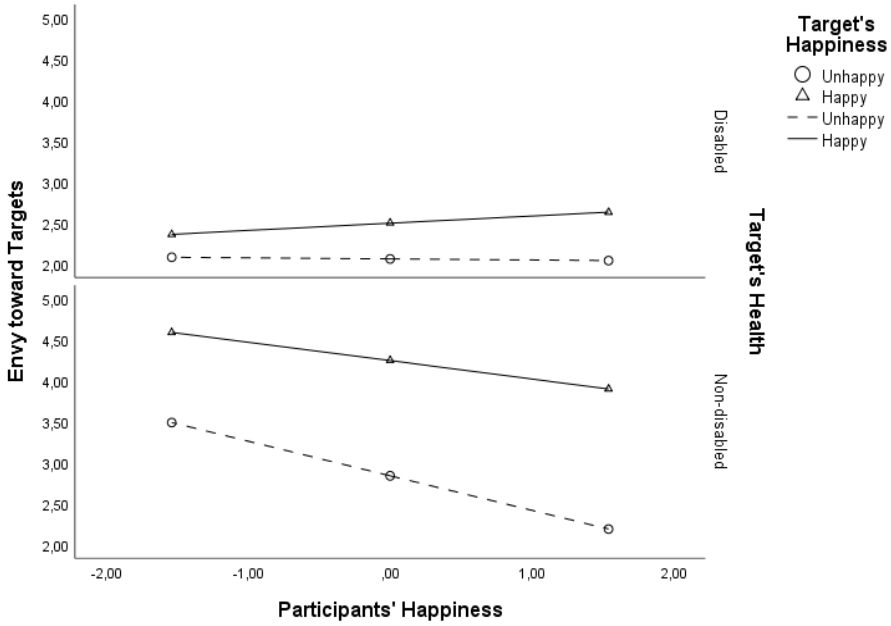

Figure 2. Envy toward the target as a function of the target's happiness levels, the target's physical health, and participants' levels of happiness

In sum, Study 2 demonstrated that the effect of target's happiness on envy was only significant within the non-disabled target, but not within the disabled target. That is, a happy person is envied more than an unhappy person, only if he is non-disabled. A disabled person, on the other hand, is less envied than the non-disabled

person, regardless of whether he is happy or unhappy. Thus, these findings partially support our Hypothesis 1. Furthermore, contrary to Hypothesis 2, participants' level of subjective happiness did not moderate the relationship between target's happiness and target's physical health on envy. However, the findings showed that relatively unhappy participants, as compared to relatively happy participants, are more envious toward a non-disabled person, while this difference between happy and unhappy participants in envy was not found for a disabled target person (see Figure 2).

A moderation-by-Belief in a Just World hypothesis

To test whether participants' belief in a just world moderates the effect of target's happiness and target's physical health on liking and envy, we conducted a moderated moderation analysis using Model 3 PROCESS macro similar to the previous analysis. No significant three-way interaction between target's happiness, target's physical health, and participants' belief in a just world on liking, B = -0.36, 95% CI = [-0.84, 0.12] as well as on envy, B = -0.13, 95% CI = [-0.73, 0.47]. These findings indicate that participants' evaluations toward a target person's happiness and physical health were not affected by their level of belief in a just world.

In sum, the findings from Study 2 support Hypothesis 1 and previous findings that people like a happy person better than an unhappy person. The effect of happiness on a person's likability is independent of the person's physical health. We partly found support for the own-happiness-moderation hypothesis, that is, a happy target was liked more to the extent that participants were happier themselves, and an unhappy target was liked more to the extent that participants were less happy. Results also show that people envy a happy person more than an unhappy person, if the person is non-disabled. It seems that a person's physical health evokes more envy, especially in unhappy people. Unhappier people (as compared to happier people) are relatively more envious toward a non-disabled person, while people, in general, are less envious toward a disabled person. The findings also support previous findings that there is a positive association between benign envy and liking toward others (e.g., van de Ven, Zeelenberg, & Pieters, 2009; Study 1, current research). Finally, we found that belief in a just world did not moderate the effect of the target person's happiness and physical health on their evaluation toward others.

Study 3

Several research findings have shown that someone's wealth affects their evaluation by others. For example, people favor the rich over the middle class (Horwitz & Dovidio, 2017), distance themselves from the poor (Lott, 2002), envy the rich and scorn the poor (Fiske, 2010). In Study 3 we aimed to compare the effect of wealth with the effect of happiness on liking. Therefore, we extended our research with different wealth conditions (i.e., rich vs. poor) and added wealth to the target's descriptions so that the target was described as rich and happy, rich and unhappy, poor and happy, or poor and unhappy. We examined whether the effect of the target's happiness on liking and envy holds even when crossed with the target's wealth. Similar to the previous studies, we examined Hypothesis 1 (i.e., happiness-leads-to-liking), Hypothesis 1alt (i.e., own-happiness-moderation for liking), and Hypothesis 2 (i.e., own-happiness-moderation for envy).

Study 2 indicated that the moderation-by-Belief in a Just World hypothesis was unsuccessful to explain why people like happy others and dislike unhappy others. In Study 3, we explored another potential explanation, namely perceived emotional contagion susceptibility. Emotions appear to be contagious from person to person through facial expressions, vocalization, and posture. Individual differences in the tendency to automatically synchronize with the expressions of others influence the extent to which people are affected by the emotional expression of others (Hatfield et al., 1993). People who are more susceptible to mirror other's emotion would react differently from those who are less susceptible when encountering a happy or an unhappy person. For example, an encounter with an unhappy person may evoke more fear of being affected by the person's unhappiness, especially in people who are more susceptible to emotional contagion (i.e., score higher on an emotional contagion susceptibility scale). That is, an individual scoring high on emotional contagion susceptibility may particularly dislike an unhappy person because he or she is especially likely to fear emotion contagion by the unhappy person. To examine this prediction, we measured the extent to which participants worry to be affected by the happy and unhappy target (i.e., fear of emotional contagion toward the target) after they read the target description. In addition, in the first phase of the study, thus before participants read the target descriptions, participants' general inclination to mirror other's emotion (i.e., participants' emotional contagion susceptibility) was

measured. We then tested the indirect effect of target's happiness on liking through fear of emotional contagion, and tested whether this indirect effect depended on the participant's dispositional emotional contagion susceptibility (i.e., a moderated-mediation-of-fear of emotional contagion-by-emotional contagion susceptibility hypothesis).

Method

Participants

Participants were 214 United States citizens (47% male, age range from 21 - 72 years old, *M* = 37.15, *SD* = 10.83) recruited from Amazon Mechanical Turk. Participants' self-reported ethnic background was 88% White, 5% Asian, 5% African American, 1% Hispanic, and 1% mixed. They reported a range of educational backgrounds: 38% had a bachelor degree, 24% completed high school, 13.5% an associate degree, 11% a master's degree, 9% a certificate or diploma, 2% an advanced degree, 2% a doctoral degree, and 0.5% did not complete high school. Participants' self-reported work life was 65% full-time employee, 9% self-employed, 9% homemaker, 8% part-time employee, 4% unemployed, 2% student, 2% retired, and 1% other.

Procedures and Materials

The procedures and materials of Study 3 were similar to the previous studies, except for the target's descriptions and some additional measures. In addition to the scales that were used in the previous studies, participants were asked to complete six items of the 15-items Emotional Contagion Scale (Doherty, 1997), which measures the imitative tendency to happiness and sadness using 4-point Likert scale (1 = *never*, 2 = *rarely*, 3 = *often*, 4 = *always;* i.e., "Being around happy people fills my heart with happy thoughts"; "I cry at sad movies"; Cronbach's α = .79). Two to 10 days later, participants were randomly assigned to read a brief description of a target person called Bob, depending on their conditions. The target's happiness and wealth were systematically varied (i.e., a happy-rich target, a happy-poor target, an unhappy-rich target, and an unhappy-poor target; see Supplementary Materials for the target's descriptions). Afterward, we asked participants to evaluate the target

based on the target's likability, envy for the target, and an additional 3 questions on fear of emotional contagion (i.e., "I would avoid Bob to protect myself from becoming unhappy"; Cronbach's α = .84)[4]. Finally, the manipulation check was presented to the participants. The internal consistencies for the other previously used scales (i.e., subjective happiness, likability, and envy) remained high (Cronbach's α ranged from .92 to .95).

Results

Similar to the previous studies, an analysis for the manipulation check question indicated that participants were able to differentiate the happy target, *M* = 5.60, *SD* = 1, from the unhappy one, *M* = 2.87, *SD* = 1.15, *F*(1, 210) = 348.27, *p* < .001, η_p^2 = .62.

Target's happiness levels, target's wealth, participants' happiness levels, and target's likeability

Model 1 PROCESS macro (v3.4; Hayes, 2018) on SPSS was used to test the interaction between target's happiness and target's wealth on likability. The analysis revealed significant conditional effects of target's happiness, *B* = 0.95, 95% CI = [0.62, 1.28], and wealth, *B* = -0.65, 95% CI = [-1.05, -0.26], on likability[5]. The happy target, *M* = 5.51, *SD* = 0.75, was liked significantly more than the unhappy target, *M* = 4.27, *SD* = 1.09, and the rich target, *M* = 4.67, *SD* = 1.23, was liked *less* than the poor target, *M* = 5.07, *SD* = 0.98. These effects were qualified by a significant interaction between both variables, *B* = 0.59, 95% CI = [0.92, 1.08]. Inspection of the conditional effects shows a significantly stronger effect of target's happiness within the rich target, *B* =

[4] Similar to Study 2, we measured target's deservedness but did not find any significant effects of targets' happiness and wealth on deservedness. For the sake of brevity, we do not report the results in the paper.

[5] The test of homogeneity of variances and homoscedasticity indicated that the error variance of likability scores is unequal across conditions. We did a Log10 transformation on the raw data, which then made the error variance of likability scores more homogenous and homoscedastic. We used the transformed data to conduct a factorial ANOVA for target's happiness and target's wealth on likability. The group means resulting from the analysis were back-transformed for interpretation. Results show that although the values of the back-transformed means are slightly higher than the original means, the mean differences among conditions are significant, in line with the results of the factorial ANOVA of the raw data. We decided to report the results of the raw data analysis in the current paper and include the results of the transformed data analysis in Supplementary Materials.

1.53, 95% CI = [1.16, 1.90], than within the poor target, *B* = 0.95, 95% CI = [0.62, 1.28]. Participants rated the happy-rich target higher on likability, *M* = 5.48, *SD* = 0.82, than the unhappy-rich target, *M* = 3.95, *SD* = 1.07. They also rated the happy-poor target higher on likability, *M* = 5.55, *SD* = 0.69, than the unhappy-poor target, *M* = 4.60, *SD* = 1.01. Looking at the interaction differently, the effect of target's wealth was only significant for the unhappy target, *B* = -0.65, 95% CI = [-1.05, -0.26], but not for the happy target, *B* = -0.07, 95% CI = [-0.36, 0.23]. Participants rated the unhappy-rich target, *M* = 3.95, *SD* = 1.07, lower on likability than the unhappy-poor target, *M* = 4.60, *SD* = 1.01, while for the happy target, they rated relatively similar and high level of likability regardless of their wealth.

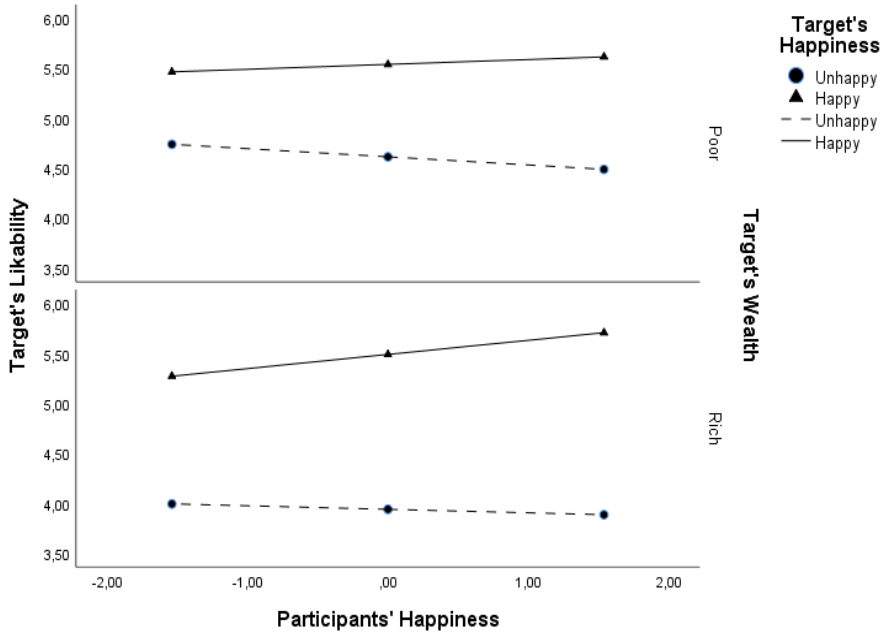

Figure 3: Target's likeability as a function of the target's happiness levels the target's wealth, and participants' levels of happiness

Following Study 2, Hypothesis 1 alt (i.e., own-happiness moderation) was tested using a moderated moderation analysis (Model 3 PROCESS macro) for target's happiness, target's wealth and participants' happiness on likability. Results show no significant three-way interactions between participants' happiness and both target's

conditions on likability, *B* = 0.05, 95% CI = [-0.31, 0.40]. Moreover, there was no evidence for the significant effects of two-way interactions between variables (all *p*'s > 0.05). In sum, Study 3 confirmed our hypothesis that a happy person is liked more than an unhappy person, although we found no support in this study for the similarity hypothesis (i.e. Hypothesis 1alt, see Fig 3). It is interesting to note that a rich person is liked *less* than a poor person, especially if he is unhappy.

Target's happiness levels, target's wealth, participants' happiness levels and envy toward the target

Another moderated multiple regression using Model 1 PROCESS macro (v3.4) on the effect of the target's happiness and wealth was conducted on envy as the dependent variable. The analysis revealed significant effects of the target's happiness, *B* = 0.08, 95% CI = [0.35, 1.20], and the target's wealth, *B* = 1.14, 95% CI = [0.70, 1.58], on envy. The happy target, *M* = 4.07, *SD* = 1.70, was envied significantly more than the unhappy target, *M* = 2.69, *SD* = 1.30, and the rich target, *M* = 4.24, *SD* = 1.61, was envied significantly more than the poor target, *M* = 2.49, *SD* = 1.18. These effects were qualified by a significant interaction between the target's happiness and wealth, *B* = 1.32, 95% CI = [0.69, 1.96]. The conditional effects of the target's happiness on envy was significantly stronger within the rich target, *B* = 2.10, 95% CI = [1.62, 2.57], than within the poor target, *B* = 0.77, 95% CI = [0.35, 1.20]. The happy-rich target, *M* = 5.35, *SD* = 1.12, was envied more than the unhappy-rich target, *M* = 3.25, *SD* = 1.30, and the happy-poor target, *M* = 2.88, *SD* = 1.22, was envied more than the unhappy-poor target, *M* = 2.11, *SD* = 1.01. Similarly, the effect of target's wealth was significantly stronger within the happy target, *B* = 2.46, 95% CI = [2.01, 2.92], than within the unhappy target, *B* = 1.14, 95% CI = [0.70, 1.58]. The happy-rich target, *M* = 5.35, *SD* = 1.12, was envied more than the happy-poor target, *M* = 2.88, *SD* = 1.22, and the unhappy-rich target, *M* = 3.25, *SD* = 1.30, was envied more than the unhappy-poor target, vs. *M* = 2.11, *SD* = 1.01.

We also tested the moderation by own happiness hypothesis using Model 3 PROCESS macro (v3.4) and found a non-significant three-way interaction between target's happiness, wealth and participants happiness on envy, *B* = -0.01, 95% CI = [-0.43, 0.40]. The two-way interactions between variables were not significant (*p* > .05). Thus, whereas overall participants displayed more envy towards happy than

unhappy targets, this effect did not depend on one's own level of happiness. Again, we found support for the significant association between envy and liking toward the target, $r(212) = .39$, $p < .001$. = [-0.43, 0.40].

In sum, Study 3 confirmed the findings of Study 1 and Study 2 that happy person is liked and envied more than unhappy person. These effects are significantly stronger within the rich than within the poor person, regardless of the happiness levels of one judging (see Fig. 4).

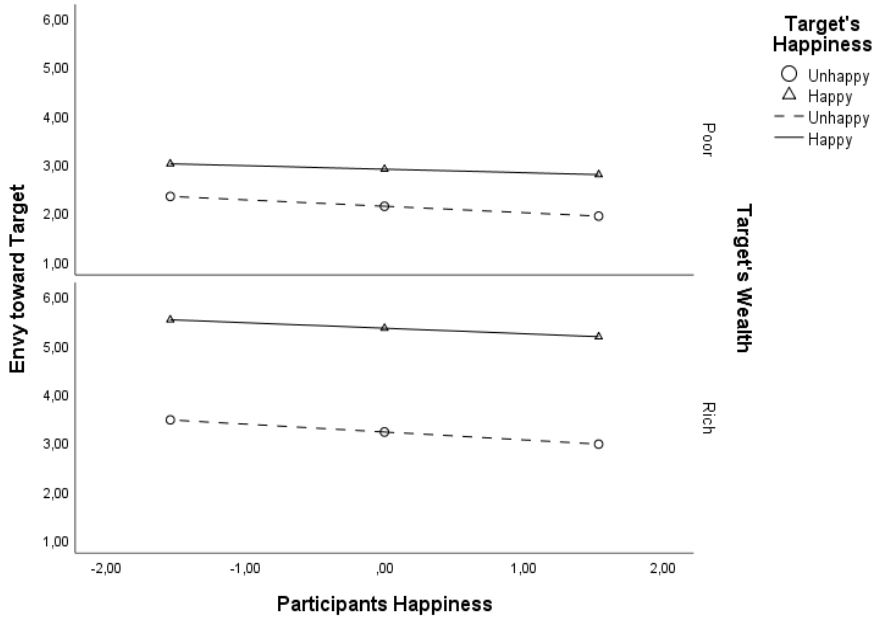

Figure 4: Envy toward the target as a function of the target's happiness levels, the target's wealth, and participants' levels of happiness

A moderated-mediation-of fear-of-emotional-contagion-by-emotion contagion susceptibility hypothesis

To test the hypothesis that the effect of target's happiness on liking is mediated by fear of emotional contagion toward the target, and that this mediation is moderated by participants' emotional contagion susceptibility, we conducted the analysis in two steps. First, we tested whether there is an indirect effect of target happiness on liking through fear of emotional contagion. Similar to previous analyses, the dichotomous target's happiness was coded as 1 (happy target) and 0 (unhappy target). A mediation analysis using Model 4 PROCESS macro with target's happiness as the independent variable, fear of emotional contagion as the mediator, and likability as the dependent variable revealed that there was a significant indirect effect of fear of emotional contagion on the effect of target's happiness on liking, *B* = 0.75, 95% CI = [0.53, 1.00]. The unhappy target evoked more fear of emotional contagion, *M* = 4.22, *SD* = 1.12, than the happy target, *M* = 2.72, *SD* = 0.92, *B* = -1.50, 95% CI = [-1.77, -1.21], which in turn led to less liking toward the target, *B* = -0.50, 95% CI = [-0.61, -0.40] (see Fig. 5). Thus, these findings provide support for the idea that unhappy targets are liked less because of the fear of emotional contagion.

Second, we tested whether participants' emotional contagion susceptibility moderates the effect of target's happiness on fear of emotional contagion and on liking toward the target, by including emotional contagion susceptibility as the moderator. A moderated mediation analysis using Model 8 PROCESS macro revealed that the index of moderated mediation was not significant, *index* = -.02, 95% CI = [-0.28, 0.28], and that there were no significant moderations of participants' emotional contagion susceptibility on the effect of target's happiness on fear of emotional contagion, *B* = 0.04, 95% CI = [-0.50, 0.57] as well as on liking toward the target, *B* = -0.11, 95% CI = [-0.50, 0.29]. Thus, participants disliked the unhappy target because they were afraid of being affected by the target's unhappiness, and this occurred regardless of whether they had high (or low) susceptibility for emotion contagion.

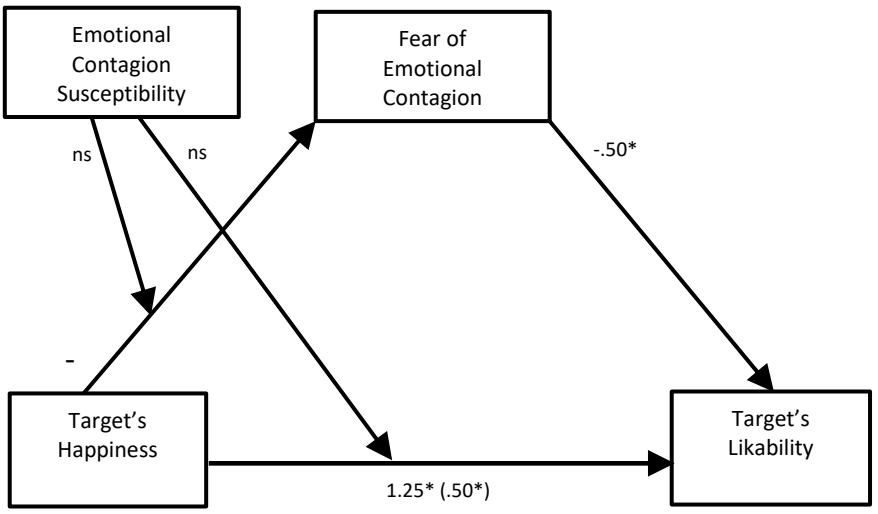

Figure 5: The moderated mediation of fear of emotional contagion and emotional contagion susceptibility on the effect of target's happiness levels on target's likeability

In sum, the findings in Study 3 suggest that people like a happy person more than an unhappy person, and this superiority of happiness over unhappiness is true for both rich and poor targets. Interestingly, we found that a rich person is liked less than a poor person, especially if he is unhappy. Furthermore, findings suggest that people are also more envious towards a happy rather than an unhappy person and again, this is true for both rich and poor others. They are also more envious towards a rich rather than towards a poor person. If a rich person is happy, people appear even more envious. These findings support our prediction that people like and envy a happy person more than an unhappy person, largely regardless of the person's wealth. Importantly, in Study 3 we found no support for the similarity hypothesis: participants liked a happy target more than an unhappy target, irrespective of one's own level of subjective happiness. We also found no support for the prediction that envy towards a happy person should especially occur for people low in happiness themselves. Finally, the findings revealed a potential explanation of why people dislike an unhappy person, namely fear of emotional contagion. People are afraid to be influenced by a person's unhappiness more than by a person's happiness, therefore they tend to dislike the unhappy person.

General Discussion

Previous research demonstrated that people like happy others, as well as others who merely show expressions of happiness (e.g., Diener et al., 1995; Lau, 1982; Reysen, 2006; Schimmack et al., 2004). How robust and powerful is the effect of a target person's happiness on liking? In three studies we consistently found that participants liked happy people more than unhappy people. This effect occurred 1) irrespective of own happiness level, and 2) it largely overrode the effect of the target's physical health and wealth (as shown in Study 2 and Study 3, respectively). Results also showed that in addition to evoking liking, others' happiness also led to envy. In three studies, we demonstrated that people experience benign envy towards (i.e., want to be similar to) happy others more than towards unhappy others. Unlike its effect on liking, the effect of others' happiness on envy was moderated by the other persons' physical health and wealth. Specifically, the level of happiness in a person only predicted envy when it concerned a non-disabled person (but not a disabled person). Moreover, a person's happiness predicted envy more strongly in a rich person rather than in a poor person. Envy towards happy others was, unlike our prediction, not moderated by one's own level of happiness. In short, these findings strongly suggest that people tend to like and envy happy others more than unhappy others, and the lack of moderation of these basic findings suggest that this is the case no matter what.

In the introduction, we reasoned that the effect of others' happiness on liking may be constrained by the similarity effect (i.e., own-happiness moderation hypothesis). However, the findings show insufficient and inconsistent support for this prediction: only in Study 2 we found some support in line with the similarity-liking hypothesis, but we did not replicate this finding in Studies 1 and 3. According to the information processing perspective of attraction (e.g., Ajzen, 1974; Kaplan & Anderson, 1973), people typically compare their own attributes with another person's attributes. Attributes similar to their own are evaluated positively (Montoya & Horton, 2013). Accordingly, dissimilar attributes are evaluated less positively and result in disliking (e.g., Stalling, 1970). This similarily-liking effect has been demonstrated for a large range of attributes (e.g., attitudes, personality characteristics, socio-economic background, physical attractiveness, preference for activities, music, religion, etc.).

Our findings suggest that this principle is less applicable to happiness. That is, whereas previous research has provided ample support for the similarity-liking association with regard to a range of traits and preferences (see Montoya et al., 2008, for an overview), the present findings provide an interesting exception to this basic similarity-leads-to-liking effect. Actually, these studies are not the only studies that did not find evidence for the similarity effect of happiness. Previous research on adolescence happiness (van Workum, et. al., 2013) found that adolescence do not form friendship based on happiness similarity between them.

Perhaps it is not all that strange in light of the fact that that people consider happiness as an ultimate goal. People are naturally motivated to be happier (e.g., Howell, et al., 2016; Lyubomirsky, King, & Diener, 2005), it is likely that unhappy people who encounter a happy other (i.e., a dissimilar other) somehow assign positive (instead of negative) valence to the other's happiness. Conversely, when meeting an unhappy other (i.e., a similar other), unhappy people may assign negative (instead of positive) valence to this attribute, because they do not desire unhappiness themselves.

Several hypotheses were explored to answer the question of why people like happy others and conversely, dislike unhappy others. We found support for the prediction that people worry about being affected by the emotions of unhappy people. Study 3 showed that fear of emotional contagion mediated the effect of the target's happiness on liking. Specifically, participants anticipated that they would experience negative emotions (e.g., unhappiness) when meeting an unhappy target, and this anticipation led to less liking for the unhappy target. These findings are in line with previous findings on how people respond to depression. It has been demonstrated that depressed people induce negative affect in those who interacted with them and are rejected (Coyne, 1976a). van Workum and colleagues (2013) also found that adolescence may dissolve friendship with peers who are unhappier than themselves. According to Buunk and Ybema (2003), it is due to the dissatisfaction with the relationship that caused by unhappier friends' mood. Moreover, people may hold general beliefs about how acceptable it is to experience negative and positive emotion. Positive emotions (e.g., happiness) are more socially valued and normative than negative emotions (e.g., depression, unhappiness; Bastian et al., 2012; Kumalasari, van der Veld, Karremans, & Dijksterhuis, under review). Therefore, people

appraise happy others more positively than unhappy others, as indicated by more liking for the happy others.

The current findings also provide support for the notion that *unhappiness* may have detrimental consequences for interpersonal liking. Study 1 showed that the effect size when comparing the liking for unhappy versus neutral targets was twice as a large as the effect size when comparing happy versus neutral targets, suggesting that unhappiness evokes disliking more strongly than that happiness evokes liking. These findings provide support for the general principle of the greater power of bad over good (see Baumeister et al., 2001 for an overview). The "bad is stronger than good" principle suggests that the relative strength of bad over good is a basic and adaptive response of the human organism to its physical and social environment. An interesting question, is whether the level of another person's happiness may be a reliable signal for the person's willingness to cooperate or other possible beneficial outcomes (cf. Currie & Little, 2009). In this sense, perhaps heightened awareness of and a strong response to negative information such as others' unhappiness may very well be a functional response. The fact that Study 3 showed fear of emotion contagion as a driving mechanism between a target's happiness level and liking is in line with the finding in Study 1 that particularly an unhappy target people were disliked.

Inspecting the effect of happiness levels of people with different levels of physical health (i.e., non-disabled and disabled) and wealth (i.e., rich and poor) on envy, we found that the effect of the target's happiness level was less strong than the effect of physical health and wealth. Study 2 results showed that the effect of others' happiness on envy was only significant within a non-disabled target, such that a happy non-disabled person was envied more than an unhappy non-disabled person. However, a disabled person, even if he is happy, was envied less. Here we provide support for previous findings suggesting, not surprisingly, that disability is less desirable (e.g., Livneh, 1982; Vilchinsky, et al. 2010). Furthermore, the findings of Study 3 suggested that a person's likability was strongly influenced by the persons' wealth when it concerned an unhappy person rather than a happy person, such that a rich person is liked *less* than a poor person, especially if he is unhappy. In other words, while many people strive for wealth, these findings show that a wealthy unhappy person is disliked, suggesting that wealth without happiness is not desirable (cf. Whillans, Weidman, & Dunn, 2016).

Limitations and Future Research

While the relation between a target's happiness and target's likeability may appear self-evident, previous research has not explicitly addressed the questions whether a target's level of happiness affects liking, *why* this effect actually occurs, and whether this effect would occur irrespective of one's own level of happiness. The present research provides initial answers to these questions.

These findings, however, should be seen in light of a several limitations. We used brief descriptions of people rather than real people. Perhaps in real life, other factors and traits play an important role and may overrule happiness effects on liking. Similarly, an interesting but unaddressed question based on our findings is how people respond in an actual encounter with happy versus unhappy people. Do our findings imply that people would behave more negatively towards unhappy people? Moreover, some of the results may have been affected by social desirability. Given that some previous findings suggest that people perceive a norm to be happy in modern society (Kumalasari et al., under review), it could be that people give higher likability ratings to a happy target than to an unhappy target because they tend to conform with the norm in society. Relatedly, participants in our studies responded on explicit rating scales. It would be very interesting to examine implicit and less controllable responses to happy versus unhappy people.

In the current research, the level of happiness was measured and manipulated as a relatively stable characteristic of participants and the target person. Whereas subjective happiness ratings tend to be fairly stable across time (e.g., Lyubormisky & Lepper, 1999, found test-retest correlations varying from .55 to .90 with an average of .72, across a one-year period), happiness ratings and experiences also fluctuate, for example depending on current mood states (Schwarz & Clore, 1983). We cannot be sure to what extent our findings were affected by current mood states, and thus to what extent evaluations of other people based on their happiness levels may fluctuate across time and situations. The current findings do suggest, however, that in any given situation, a happier target person tends to be evaluated more positively, independent of the perceiver's current level of happiness (which could be influenced by one's current mood state). Furthermore, the target person in the present studies was depicted as male, which is a potential limitation of the studies.

For example, male participants might be more strongly influenced by the target's level of happiness, as they may identify more strongly with the target person. Or, perhaps female participants may, on average, be more positive about a target person (cf. Cross & Morris, 2003) which could affect the interpretation of the results. However, as can be seen in the Supplementary Materials, controlling for participants' gender, the effect of target's happiness, health and wealth on liking and envy revealed very similar results. Nevertheless, an interesting question for future research is whether the present findings generalize across gender: are evaluations about women just as strongly influenced by their level of happiness, as we found in the present research for males? For example, some previous work indicates that gender stereotypes include that women tend to display more positive or happy emotions than men (Bijlstra et al., 2010). As a consequence, unhappy women who divert from this stereotype may be evaluated more harshly than unhappy men.

Previous research on the similarity hypothesis has often used a method whereby a certain characteristic of the target person was experimentally matched with a characteristic of the participant (e.g., Byrne et al., 1969; Jamieson, Lydon, & Zanna, 1987; Steele & McGlynn, 1979). Arguably, this method may provide a stronger test of the similarity-liking hypothesis than the method we used, in which participants were randomly assigned to the different target person descriptions (as was done in various previous studies that tested the similarity liking hypothesis, e.g., Gattis, Simpson, Christensen, & Berns, 2004; Klohnen & Luo, 2003; Strauss, Barrick, & Connerley, 2001).

Finally, participants in these studies were U.S. citizens and mostly White. Therefore, the findings may not generalize to non-U.S. samples and other ethnic groups, or across nations and cultures. Possibly, countries and cultures may differ in the extent to which happiness is a *norm*. Unhappy individuals may be particularly disliked in countries with a strong prevailing norm to be happy. Another interesting and somewhat related question is whether the frequency of use and exposure to social media may affect people's evaluations of happy and unhappy others. People increasingly judge their own lives based on what they see on social media (e.g., Vogel, Rose, Roberts, & Eckles, 2014), and through increased social media use, happiness may become an even more central aspect in how people evaluate others. Whether and how social media and cultural norms about happiness affect how happy versus unhappy people are evaluated are very interesting directions for future studies.

Conclusion

The present research provides empirical support for the idea that people desire happiness, not only for themselves but also in others. The happiness-liking effect is, apparently so powerful that even people who are unhappy like happy others more than unhappy others, and it does not make a difference how wealthy or healthy others are: another people's happiness matters strongly in how we evaluate them.

Supplementary Materials

This supplementary document consists of detailed information on: 1) the target person's description, 2) the results of Study 3 based on log transformed data, and 3) the results of the analyses to control for participants' gender.

The Target Person's Descriptions

To manipulate perceived happiness, physical health and wealth, we created several descriptions of a target person prior to examining our main hypotheses. We describe the detailed information on the target person's description below.

Study 1

The target person's descriptions consisted of 9 similar sentences describing his appearance (i.e. tall, dark hair, brown eyes), preference (i.e. likes wearing jeans and T-shirt, read and watch movies), living conditions (i.e. lives close to his office, in a small town with some parks and a pond), his regular activities (i.e. cycles to work), his regular feelings (i.e. sometimes cheerful and sometimes not so cheerful). The target person's happiness levels were described by one sentence which differs in the happy (i.e. he is a very happy person) and the unhappy (i.e. he is not a very happy person) conditions, or by no information about the happiness level for the neutral condition. As an example, the happy target description is shown below.

A Description about Bob

> "Bob is a tall man. He has dark hair and brown eyes. He likes wearing jeans and T-shirts on his days off. He likes to read and watch movies. He lives close to his office, therefore he cycles to work. The town he lives in is not too big. It has some parks and a pond. He passes these parks when he cycles to work. Sometimes he is cheerful and sometimes he is not so cheerful. Overall, *he is a very happy person*."

Study 2

We kept the structure of the target person's descriptions in Study 1 to develop the descriptions for Study 2. The target person's descriptions consisted of 7 similar sentences describing his appearance, preference, living conditions, and his regular feelings. The target person's physical health conditions were described by two sentences that differ in the non-disabled (i.e. cycles to work) and the disabled (i.e. goes to work in his wheelchair) condition. The target person's happiness levels were described by one sentence that differs in the happy (i.e. he is a very happy person) and in the unhappy (i.e. he is not a very happy person) condition. As an example, the disabled-happy target description is shown below.

A Description about Bob

> "Bob is a tall man. He has dark hair and brown eyes. He likes wearing jeans and T-shirts on his days off. He likes to read and watch movies. He lives close to his office and *goes to work in his wheelchair*. His hometown is not too big. It has some parks and a pond. He passes these parks *when he rides his wheelchair to work*. Sometimes he is cheerful and sometimes he is not so cheerful. Overall, *he is a very happy person*."

Study 3

Similar to Study 1 and Study 2, the target person's descriptions consisted of 9 similar sentences describing his appearance, preference, living conditions, and his regular feelings. The target person's wealth conditions were described by one sentence that differs in the rich (i.e., Bob makes a lot of money, he is rich) and the poor (i.e. Bob has difficulties to make ends meet, he is very poor) condition. The target person's happiness levels were described by one sentence that differs in the happy (i.e. he is a very happy person) and in the unhappy (i.e. he is a not very happy person) condition. As an example, the poor-unhappy target description is shown below.

A Description about Bob

> "Bob is a tall man. He has dark hair and brown eyes. He likes wearing jeans and T-shirts on his days off. He likes to read and watch movies. He lives close to the factory where he works, therefore he cycles to work. His hometown is not too big. It has some parks and a pond. He passes these parks he cycles to work. *Bob has difficulties to make ends meet, he is very poor*. Sometimes he is cheerful and sometimes he is not so cheerful. Overall, *he is not a very happy person*."

Results of Study 3 Based on Log Transformed Data

The raw data of the studies are available at a public repository (i.e., the Open Science Framework; https://osf.io/92z3h/?view_only=d2056037373a46a281ad206f287e3d59). Prior to the main analysis, we conducted data screening procedures following Tabachnick and Fidell (2007). These procedures revealed that in Study 3, the test of homogeneity of variances and homoscedasticity indicated unequal error variance of likability scores across conditions. We did a Log10 transformation on the raw data, which then

made the error variance of likability scores more homogenous and homoscedastic. We report the results of the transformed data analysis in the following paragraphs.

A test for homogeneity of variance and heteroscedasticity was conducted on the raw data of Study 3. The Levene's test indicated that the error variance of likability scores is unequal across conditions, $F(3, 210) = 3.89$, $p = .01$, and the Breusch-Pagan test indicated that the error variance depends on the values of the independent variables, $\chi^2(1) = 10.38$, $p = .001$. Therefore, we conducted a log10 transformation on the raw data. The error variance of the log-transformed data was more equal across conditions, $F(3, 210) = 0{,}77$, $p = .51$, and more homoscedastic, $\chi^2(1) = 0.46$, $p = .50$.

Then, a two-way factorial ANOVA for target's happiness and target's wealth on likability was conducted on the log transformed data. Results showed significant main effect of target's happiness, $F(1,210) = 86.63$, $p < .001$, $\eta_p^2 = .29$, and target's wealth, $F(1,210) = 4.83$, $p = .03$, $\eta_p^2 = .02$. The group means resulting from the analysis were back-transformed for interpretation. The happy target, $M = 5.63$, 95% CI = [5.48, 5.78], was liked significantly more than the unhappy target, $M = 4.44$, 95% CI = [4.22, 4.65], and the rich target, $M = 4.91$, 95% CI = [4.66, 5.15], was liked *less* than the poor target, $M = 5.24$, 95% CI = [5.05, 5.41]. There was also a significant interaction between the target's happiness and the target's wealth $F(1,210) = 4.18$, $p = .04$, $\eta_p^2 = .02$. Inspection of the simple effects shows a significantly stronger effect of target's happiness within the rich target, $F(1, 210) = 63.73$, $p < .001$, $\eta_p^2 = 6.23$, than within the poor target, $F(1, 210) = 29.67$, $p < .001$, $\eta_p^2 = .11$. Participants rated the happy-rich target higher on likeability, $M = 5.63$, 95% CI = [5.36, 5.86], than the unhappy-rich target, $M = 4.10$, 95% CI = [3.79, 4.40]. They also rated the happy-poor target higher on likeability, $M = 5.64$, 95% CI = [5.45, 5.82], than the unhappy-poor target, $M = 4.76$, 95% CI = [4.45, 5.04]. Looking at the interaction differently, the effect of target's wealth was only significant for the unhappy target, $F(1, 210) = 9.26$, $p = .003$, $\eta_p^2 = .04$, but not for the happy target, $F(1, 210) = .01$, $p = .92$, $\eta_p^2 < .001$. Participants rated the unhappy-rich target, $M = 4.10$, 95% CI = [3.79, 4.40], lower on likeability than the unhappy-poor target, $M = 4.76$, 95% CI = [4.45, 5.04], while for the happy target, they rated relatively similar and high level of likability regardless of their wealth (see Figure 1).

Hypothesis 1 alt (i.e., own-happiness moderation hypothesis) was tested using a moderated moderation analysis for target's happiness, target's wealth and participants' happiness on likeability. The analysis was conducted using PROCESS macro (Hayes, 2013) on the log-transformed data. Results show no significant three-way or two-way interactions between participants' happiness and both target's conditions on likability, B = .02, 95% CI = [-.07, .04]. Considering that the results of the log-transformed data analysis are in line with the results of the raw data analysis, we decided to report the results of the raw data analysis in the manuscript.

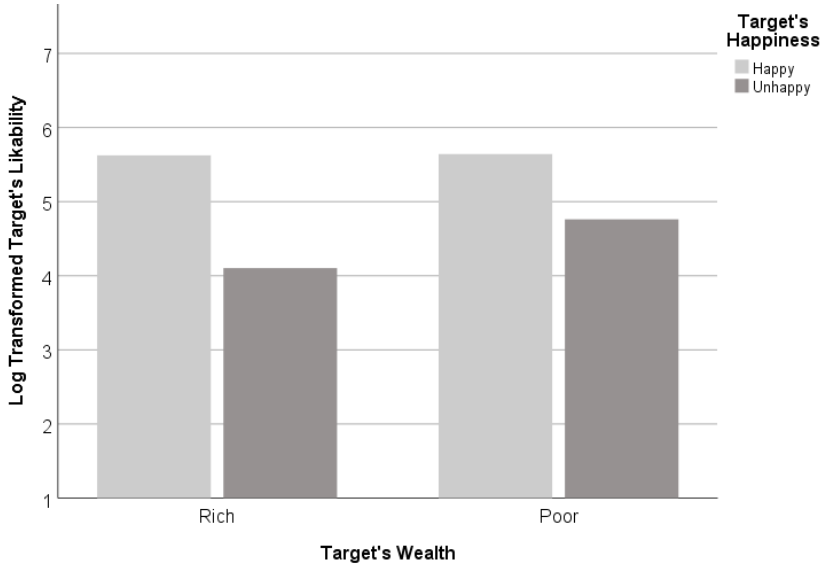

Figure 1: Log-transformed target's likability as a function of target's happiness levels and target's wealth

Results of the analyses to control for participants' gender

In the present studies, the target person was described as male, which could raise potential limitation of the study. In order to examine whether the use of only male target affect the interpretation of the present results, we tested the first order effect and the higher order effects of participants' gender on likability and envy throughout the studies. In Study 1, we conducted a 2 participants' gender (female vs. male) x 3 target's happiness (happy vs. unhappy vs. neutral) factorial ANOVA in SPSS on likability and envy. In Study 2 and Study 3, we conducted a moderated moderation

analysis using Model 3 PROCESS macro in SPSS with participants' gender as the moderator, target's happiness and target's health (or wealth) as the independent variables.

Table 1, 2, and 3 show that across studies, the first order effect of participants' gender was not significant. Participants' gender contributed only a very small and insignificant amount of variance to the variability of liking and envy. These results suggest that across studies, female and male participants were not differ in assigning likability (M = 4.70, SD = 1.05 vs. M = 4.77, SD = 1.22, Study 1; M = 4.77, SD = 1.37 vs. M = 4.70, SD = 1.10, Study 2; M = 4.87, SD = 1.17 vs. M = 4.88, SD = 1.08, Study 3) and envy scores (M = 3.37, SD = 1.45 vs. M = 3.41, SD = 1.36, Study 1; M = 2.77, SD = 1.50 vs. M = 3.00, SD = 1.56, Study 2; M = 3.18, SD = 1.75 vs. M = 3.54, SD = 1.5, Study 3) to the (male) target person.

Table 1

The first order effects and the two-way interaction of participants' gender by target's happiness in Study 1

DV	Predictors	Mean Square	F	df	Sig.	η_p^2
Likability	Target's happiness	29.19	38.06	(2, 109)	.000	.42
	Participants gender	0.02	0.03	(1,109)	.875	.00
	P_Gender*T_Happiness	1.26	1.65	(2, 109)	.200	.03
Envy	Target's happiness	26.35	17.59	(2, 109)	.000	.24
	Participants gender	0.12	0.08	(1,109)	.776	.00
	P_Gender*T_Happiness	3.12	2.08	(2, 109)	.130	.04

Moreover, these tables show that controlling for participants' gender, the first order effect of target's happiness, health, and wealth on liking and envy, as well as the two-way interaction of target's happiness by target's health or by target's wealth were very similar to the present results as reported on the main text of the manuscript. Furthermore, across studies there were no significant two-way interaction of participants' happiness by target's happiness on likability and envy, except for a marginally significant effect of the two-way interaction on likability in Study 2 (see Table 2). In sum, we did not find consistent support for the idea that participants' gender moderated any of the effects that we found.

Table 2

The first order effects and the two-way interaction of participants' gender by target's happiness in Study 2

DV	Predictors	Beta	LLCI	ULCI
Likability	Target's happiness (X)	1.60	1.32	1.87
	Target's health (M)	0.08	-0.19	0.36
	X*M	0.38	-0.17	0.93
	Participants gender (W)	-0.16	-0.44	0.12
	X*W	-0.65	-1.20	-0.09
	M*W	0.48	-0.08	1.03
	X*M*W	-.1.00	-2.11	0.11
Envy	Target's happiness (X)	0.91	0.52	1.31
	Target's health (M)	1.29	0.90	1.68
	X*M	0.98	0.20	1.77
	Participants gender (W)	0.16	-0.24	0.55
	X*W	0.36	-0.43	1.15
	M*W	0.40	-0.39	1.19
	X*M*W	-1.41	-3.00	0.17

Note: LLCI, Lower levels of 95% Confident Intervals; ULCI, Upper levels of 95% Confident Intervals.

Table 3

The first order effects and the two-way interaction of participants' gender by target's happiness in Study 3

DV	Predictors	Beta	LLCI	ULCI
Likability	Target's happiness (X)	1.24	0.99	1.49
	Target's wealth (M)	-0.37	-0.62	-0.12
	X*M	0.62	0.12	1.12
	Participants gender (W)	0.03	-0.23	0.28
	X*W	-0.33	-0.82	0.17
	M*W	-0.04	-0.46	0.54
	X*M*W	-0.18	-1.18	0.82
Envy	Target's happiness (X)	1.47	1.15	1.782
	Target's wealth (M)	1.78	1.46	2.10
	X*M	1.35	0.72	2.00
	Participants gender (W)	0.14	-0.17	0.46
	X*W	-0.20	-0.83	0.44
	M*W	0.05	-0.58	0.68
	X*M*W	-1.55	-2.82	-0.29

Note: LLCI, Lower levels of 95% Confident Intervals; ULCI, Upper levels of 95% Confident Intervals.

Chapter 4

Do People Choose Happiness? Anticipated Happiness Affects both Intuitive and Deliberative Decision-making*

* *This chapter is based on: Kumalasari, A. D., Karremans, J. C., & Dijksterhuis, A. (2020). Do people choose happiness? Anticipated happiness affects both intuitive and deliberative decision-making. Current Psychology. https://doi.org/10.1007/s12144-020-01144-x*

Abstract

People make choices among different options for different reasons. We hypothesized that people will choose the options that they believe will make them happier and that this effect of anticipated happiness on decision-making will be moderated by style of thinking (i.e., intuitive or deliberative). In a two-phase online experiment, 15 pairs of options were randomly presented one at a time, and participants indicated the extent to which each option would contribute to their happiness (i.e. anticipated happiness of a choice option). One week later, participants were randomly assigned to make choices on similar pairs of options either by using deliberative thinking or intuitive thinking. Results of a linear mixed-effects model analysis revealed that anticipated happiness influenced choices significantly, however, this occurred independent of whether participants made the choice in a deliberative or in an intuitive mindset. The implications of these findings for understanding the association between decision-making and happiness are discussed.

Keywords: anticipated happiness, thinking styles, affect-driven decision

Introduction

People naturally want to be happy (Howell et al. 2016; King & Napa, 1998). Indeed, several studies have demonstrated that happiness is rated as one of the most important goals across countries and cultures (King & Broyles 1997; King & Napa, 1998; Diener & Oishi, 2004). While people differ in their idiosyncratic beliefs about happiness, lay beliefs about happiness tend to concur quite strongly with the scientific definition of happiness, that is a high level of life satisfaction, and the frequent experience of positive and infrequent experience of negative affect (e.g., Diener, Suh, Lucas, & Smith 1999; Lyubomirsky, Sheldon, & Schkade 2005). One of the reasons that people strive for happiness may be the fact that it is associated with many advantages, such as increased mental and physical health, superior work outcomes, and larger social rewards (Lyubomirsky et al. 2005; Diener & Seligman 2002).

Given the importance people attach to happiness, it seems reasonable to expect that decisions that people make are for a large part driven by the anticipated happiness the choice or decision would bring, which we refer to as the *anticipated happiness utility* of a choice. That is, if an individual has to choose between options A and B, we could hypothesize that the person would choose option A if she believes that choosing option A would make her happier than choosing option B. It seems clear, however, that in real life people not always make optimal choices in terms of anticipated happiness utility, and in fact sometimes people make decisions that undermine happiness. For example, one may choose spending the weekend playing video games instead of spending it with family, even though one may have the knowledge that being with family will promote feelings of happiness. In the current study, we examined two related questions: First, do people make decisions based on anticipated happiness utility? And second, under what circumstances are people most likely to choose based on anticipated happiness utility? Specifically, and as will be explained in more detail shortly, we examined the hypothesis that anticipated happiness utility will determine people's choice particularly if they choose intuitively, and less so when they choose in a more deliberative fashion.

Do people choose based on anticipated happiness?

Emotion-based choice theory (Mellers & Mcgraw 2001; Mellers, Schwartz, & Ritov 1999) suggests that decisions are influenced by anticipated emotions. People often anticipate the pleasure or pain they might experience as a result of a decision. When having to make a choice, individuals imagine what it would feel like when choosing any of the given options. These anticipated emotions toward the options then guide the actual choice. That is, people choose the option with the highest level of subjective anticipated pleasure (e.g., Meller & Mcgraw 2001). People not only take anticipated pleasure into account, but also consider other emotions like regret and disappointment. For example, several studies demonstrated the impact of anticipated regret and disappointment on decision-making (Abraham & Sheeran, 2004; Zeelenberg & Pieters, 2004). Previous research has found support for the function of anticipated emotions on decision-making in insurance decisions (Hsee & Kunreuther 2000), purchase intentions (Bagozzi, Belanche, Casaló, & Flavián 2016), risky decisions (Rottenstreich & Hsee 2001), and negotiations (Kong, Tuncel, & Parks 2011).

In addition to anticipating specific emotions of different choice options, people may make predictions about the impact a certain choice has on the overall sense of happiness it will bring (i.e., anticipated happiness utility of a choice). There is some previous support for this idea. Benjamin and colleagues (2012) presented a series of hypothetical pairwise-choice scenarios that emphasized a tradeoff between two options, and subsequently asked participants which of the options would make them happier (i.e., anticipated happiness question) and which option they think they would choose (i.e., choice question). For example, participants indicated for the options "sleep less but earn more" versus "earn more but sleep less" to what extent they thought which of these two options would make them happier, and then directly thereafter (i.e., in the same questionnaire) they indicated to what extent they thought they would choose one over the other option. It was found that participants' responses toward the anticipated happiness question coincided with the choices that they made, implying that indeed people choose based on the anticipated happiness utility of choice options. One aim of the current research is to see whether we can replicate these findings, using a similar paradigm (but with some notable differences as will be explained below).

When are people more, or less, likely to make choices based on expected happiness utility?

As noted earlier, in real life people do not always make choices that indeed would result in more happiness. For example, many people invest most of their time on work and on gaining more money rather than on fostering relationships with a romantic partner, friends, and family, even though maintaining relationships with close others tends to be more strongly associated with happiness than money (Mogilner 2010). Similarly, while research shows that buying experiences generally results in more happiness than buying material goods (R. T. Howell & Guevara, 2013), people often tend to choose material goods rather than experiences. More generally, rather than making choices on anticipated happiness, people may choose based on certain general rules (e.g., Prelec & Herrnstein 1991). One example of such rules is the so-called 'seek variety' rule (Simonson 1990). Rather than choosing the option that is most preferred, and would probably bring more happiness, people tend to vary their choices simply for the sake of seeking variety (e.g., Simonson 1990). Moreover, people often may make choices based on norms, and based on what they believe is expected from them, rather than based on what would bring them more happiness (e.g., Dundes, Cho, & Kwak 2009).

Hence, an interesting question is when people are more likely to make choices based on what makes them most happy, and when are they less likely to do so. This is the second aim we have in the current research. Specifically, we examine the hypothesis that when people choose *intuitively*, their choices will be guided more strongly based on the anticipated level of happiness of the choice. In contrast, when thinking carefully and *deliberatively* before making a choice, anticipated happiness of a choice may be less strongly predictive of the actual choices that people make.

We based our hypothesis on dual-process theories of cognition and decision-making (Chaiken & Trope, 1999; Evans, 2003, 2008, 2010; Kahneman, 2011). In a very broad sense, such theories suggest that people process information in two ways, "one variously labeled the intuitive, automatic, natural, nonverbal, narrative, and experiential, and the other analytical, deliberative, verbal, and rational", as suggested by Epstein (1994, p. 710). Research has shown that people have different preferences in using either intuitive or deliberative ways of thinking and decision-making (Betsch, 2004; Kahneman, 2011). The preferred thinking strategy becomes a

habitual way of responding, and a stable preference for organizing and processing information and experience (i.e., cognitive styles) (Betsch & Kunz, 2008; Messick, 1976). When choosing between different options, intuitive thinkers consider their initial affective reactions toward the options, while deliberative thinkers rely on a more careful analysis of the pros and the cons of the available options (de Vries et al., 2008).

Intuitive thinking is thought to be closely related with the use of affect and heuristics in human decision-making and behavior. For example, according to Slovic and colleagues (2007), people may employ an "affect heuristic" to make decisions and judgments, which is a quick and intuitive assessment of "how do I feel about a possible choice?" We argue that anticipated happiness may serve as such an affect heuristic, and that intuitive thinkers would be especially likely to base their choices on anticipated happiness. People estimate which choice would make them most happy, and when choosing without too much deliberation (i.e. intuitively), this anticipated happiness information is used to actually make a choice. In contrast, when thinking deliberatively before making a choice, such affective information may be overruled by non-affective factors (e.g., de Vries et al., 2013; Phillips et al., 2016; Wilson & Schooler, 1991). For example, when thinking carefully before making a choice people may deliberate about normative aspects of the choice that could undermine the more affective influences (such as anticipated happiness) on a choice. Indeed, and in line with this general reasoning, research has shown that when people introspect on the reasons for making a particular choice, they tend to be less satisfied after making the decision, as compared to when they make a choice intuitively (Dijksterhuis & van Olden, 2006; Wilson et al., 1993). This may suggest, as we predict, that when making a choice based on careful deliberation, people use or weigh anticipated happiness of the choice less strongly.

The present research

Thus, the present research examines two hypotheses, namely 1) that there is an effect of anticipated happiness on choice, and 2) that the effect of anticipated happiness on choice is stronger when people make their choices intuitively rather than deliberatively. We examined these predictions by having participants, in phase one, indicate the level of anticipated happiness for several choice options and then,

in phase two about a week later, indicate which of the options they would actually choose. Half of the participants did this choice task in phase 2 with the instruction to make choices intuitively, the other half was instructed to deliberately think about the choice options before making the choices. Aside from experimentally manipulating intuitive and deliberative thinking styles, we also measured individual differences in the preferred style of thinking. In sum, we expected that participants' choices in phase 2 would be predicted by the anticipated happiness utility of the choice options as indicated in phase 1 (Hypothesis 1). Furthermore, we hypothesized that the effect of anticipated happiness on choice would be stronger in the intuitive versus deliberative condition (Hypothesis 2a), and would be stronger among participants with a higher self-reported dispositional preference for intuitive rather than deliberative thinking (Hypothesis 2b).

Method

Design

We used a between-subjects design with thinking style (deliberative versus intuitive) as a categorical independent variable, anticipated happiness utility as a continuous independent variable, and choice as a continuous dependent variable. The experiment was pre-registered. The hypotheses, materials, and analysis plan for the study are accessible at the OSF, a public repository website (https://osf.io/63f2j). There are no significant deviations between the actual study and the pre-registered plan, except for the different terminologies used to indicate the variables[1] and the actual syntax used to test the model. We mention the actual syntax in the data analysis section below.

Participants

A total of 150 adults were recruited in the first phase of the study from Prolific.ac, a subject pool for online studies. Only 141 participants returned for the

[1] In this manuscript, the term "anticipated happiness" was used to represent "expected contribution to happiness" in the pre-registered plan because the term is more commonly used in other literature.

second phase. Prior to data collection, the sample size was calculated based on a power analysis using PANGEA v0.2 (Westfall, 2016), an open-source web-based power application. According to Westfall (2016, p.23), a medium effect size of 0.45 "represents a reasonable suggestion for most psychological studies if one has no other information about the specific effect to be studied". Following this suggestion, we adopted this standard to calculate the sample size because we could not find an expected effect size in existing literature (e.g., Benjamin et al. 2012). Other parameters used for the sample size calculation are provided in Appendix A. The recruitment was stopped when we reached the predetermined sample size. One participant was excluded because he/she indicated not to use his/her data in a self-reported measure for identifying careless participants (i.e., "In your honest opinion, should we use your data?"; Meade & Craig, 2012). Thus, 140 participants were included in the final analyses (38% male, age ranged 18 – 65 years old, M = 37.46, SD = 12.12).

Participants were UK (81%) and the US (19%) citizens. 91% was Caucasian, 6% Asian, 1% African, 1% Latino/Hispanic, and 1% belonged to other ethnicities. 37% was full-time employee, 22% part-time employee, 11% homemaker, 9% self-employed, 7% student, 5% unemployed, 3% retired, and 6% other work. The educational backgrounds were 37% bachelor's degree, 34% high school, 15% vocational education, 7% master's degree, 7% other education. Their relationship statuses were 32% single, 30% in a relationship, 29% married, 6% divorced, 2% engaged, and 1% widowed.

Procedures and Materials

The procedures we used in the present research were adapted from Benjamin and colleagues (2012). Participants were requested to participate in a two-phase online study. The first phase (i.e., the anticipated happiness of options) and the second phase (i.e., choice) were presented with an interval of 5 to 10 days. Participants received a total of £2 for their participation in the study. A general description of what was expected from participants was posted on www.prolific.ac. Informed consent was obtained from all participants. After providing informed consent, participants received the link to the first phase of the study.

In this phase, participants indicated their anticipated level of happiness for a number of choice options. Specifically, participants were presented with 15 pairs of options in random order. The options represented hypothetical life events in six life domains, that are found to be associated with happiness in previous studies (e.g., Diener & Fujita 1995; i.e., romantic relationship, health, leisure, money, friendship, and job). Each pair consisted of two options of which one was presented on the left side (i.e., Option A; e.g., "A warm date with someone you love") and the other on the right side (i.e., Option B; e.g., "Exercise in your favorite gym") of the computer screen.

Participants responded to the following anticipated happiness question: "*Between these two options, how much do you think one option would contribute to your happiness relative to the other one?*", using a 100-point slider by sliding the dot in the middle of the slider toward the most contributing option. The score of 0 indicated that Option A (i.e., the one on the left side of the screen) contributed the most to happiness relative to Option B (i.e., the one on the right side of the screen), the score of 100 indicated that Option A contributed the least to happiness relative to Option B, and vice versa for Option B (see Appendix B for the complete pairs of options and anticipated happiness instruction). All choice options were presented in a randomized order, and the location of the options on the screen (left/right) was also randomized.

After indicating the level of anticipated happiness for all choices in phase 1, participants reported their preference for decision-making style (i.e., intuitive/deliberative) on the Preference for Intuitive/Deliberative Scale (PID; Betsch, 2004). The scale comprises of 9 items measuring preference for intuitive thinking (PID-I, i.e., "I listen carefully to my deepest feelings"), and 9 items measuring preference for deliberative thinking (PID-D, i.e., "Before making decisions I think them through"). Participants responded using 5-point Likert scale (*1 = very much disagree, 5 = very much agree*). PID-I and PDI-D showed adequate internal consistency (α = .78 and .77, respectively). Higher mean scores in PID-I indicated a stronger preference for intuitive thinking. Similarly, higher mean scores in PID-D indicated a stronger preference for deliberative thinking. Finally, participants filled

out some demographic questions (i.e. age, sex, educational, work, ethnicity background, and marital status)[2].

Five to ten days later, participants received an email directing them to the second phase of the study. In this phase, they were randomly assigned to either the intuitive condition (n = 69) or the deliberative condition (n = 71). Depending on the condition, participants received different instructions. Participants in the deliberative condition were instructed to "*rely on a careful analysis to answer the following questions, and ignore any intuition or 'gut instincts' that might arise*". Participants in the intuitive condition were instructed to "*use your gut feelings or intuition to respond to the following questions, rely on your first thought, and avoid thinking too much about it*" (see Appendix C for the full instruction for the thinking style conditions).

Next, participants were presented with the same choice options as in the first phase, and now responded to the following choice question: *"If you were limited to these two options, how likely would you choose one option over the other?"* Again, participants indicated their responses using a 100-point slider, by sliding the dot in the middle of the slider toward their choice. The score of 0 indicated that they would definitely choose Option A, and the score of 100 indicated that they would definitely choose Option B (see Appendix C for the full choice instruction).

Finally, participants received a 5-item measure to check the validity of the manipulation (e.g., "I chose the option that felt right to me", adapted from Dane et al., 2011; Zhu et al., 2017), indicating the extent to which they use deliberative or intuitive thinking when completing the choice task on a 7-point scale (*1 = strongly disagree, 7 = strongly agree*, α = .79). Higher averaged scores indicated the use of more intuitive thinking style and lower averaged scores indicated the use of more deliberative thinking style. The duration of participants' completion of the choice task was also recorded as an indirect measure of the manipulation effectiveness. We reasoned that participants would complete the task faster in the intuitive condition than in the deliberative condition.

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[2] For exploratory reasons, we also measured several potential moderating variables on the relationship between anticipated happiness and choice, namely: subjective happiness, materialistic value orientation, and the pursuit of happiness. We reported the analyses and results of these variables in the supplementary material.

A self-reported measure to identify careless participants (i.e., "In your honest opinion, should we use your data?"; Meade & Craig 2012), and a short debriefing text about the study were presented at the end of the study.

Data Analysis

In total, the dataset consisted of 2100 observations, derived from responses of 140 participants to 15 pairs of options. Data were checked for outliers and multicollinearity prior to analysis. Inspection of the data revealed that there was an error in programming one pair of the option (i.e., pair number 14), and it was excluded from the analyses. After doing so, the dataset used for the analyses consisted of 1960 observations. Supplementary data can be found at the OSF (https://osf.io/vp6td/).

Given that the 14 pairs of options (i.e., scenarios) were measured within participants (i.e., P_num), a linear mixed-effects model approach was used to analyze the following model:

```
Choices ~ Happiness * conditions + (1 + Happiness | P_num) +
(1 + Happiness | scenarios)
```

This model estimates both fixed effects (i.e., the effect of the predictors: happiness and thinking condition, and their interaction, on the dependent variable: choices) and random effects (i.e., taking into account individual differences in participants' response tendencies, and possible differences in scenarios). The data analysis was conducted in R (version 3.4.4, R Core Team, 2018), using the mixed() function of the afex package (version 0.20-2, Singmann et al., 2018). We followed the advice of Barr and colleagues (2013) to use a maximal random-effects structure for models where possible. The structure included by-participants and by-scenarios random intercepts and random slopes for the predictors varying within-participants and within-scenarios (i.e., anticipated happiness and conditions), as well as all correlation terms among the random effects. To measure the differences between intuitive and deliberative conditions, we used the sum contrasts (and accordingly Type III Sums of Squares) with deliberative condition as the reference category. To

determine *p*-values of overall effects we used the conditional F tests with Kenward-Roger correction of degrees-of-freedom, as implemented in the Anova() function from the package car (version 2.1-6; Fox & Weisberg, 2018).

Using a similar linear mixed-effects model, we tested the moderation of individuals' preference for intuitive and deliberative thinking by entering PID-I scores and PID-D scores separately, replacing the conditions part in the model.

Results

Manipulation check

To examine the effectiveness of the manipulation instruction of intuitive and deliberative thinking, we conducted an independent sample t-test with thinking style as the grouping variable and the mean of participants' scores on the manipulation check as the test variable. Results show that participants reported more intuitive thinking when completing the task in the intuitive condition, M = 5.09, SD = 0.78, than participants in the deliberative thinking condition, M = 3.37, SD = 0.90, $t(1936.7) = 45.29$, $p < .001$. When we tested the effect of condition on the time spent to complete the task using a Mann-Whitney test, we found that participants in the intuitive condition, Mdn = 4.9 seconds per scenario, spent less amount of time on making decisions as compared to participants in the deliberative condition, Mdn = 5.2 seconds per scenario, U = 441449.5, p = .002. These results indicated that participants both reported more intuitive thinking when completing the task in the intuitive condition, and indeed made faster decisions, than participants in the deliberative thinking condition.

The effect of anticipated happiness and thinking styles on choice

The linear mixed-effects model testing, as described in the data analysis section, revealed a significant main effect of anticipated happiness on choice, $F(1, 22.42) = 392.41$, $p < .001$. Consistent with hypothesis 1, the more participants believed that an option would contribute to their happiness, the more likely they were to choose the option.

Contrary to hypothesis 2a, the relationship between anticipated happiness and choice was not significantly different in the intuitive condition and in the deliberative condition, $F(1, 126.16) = 0.04$, $p = .84$. For completeness, we report that the main effect of thinking style on choice was not significant, $F(1, 137.73) = 0.51$, $p = .48$, but note that this main effect is arbitrary (i.e., it simply indicates whether or not condition is associated with being more likely to choose the left or right options). Similarly, contrary to hypothesis 2b, we did not find support for the moderation of the measured preference of thinking styles (i.e., PID-I, $F(1, 111.44) = 1.19$, $p = .27$, and PID-D, $F(1, 121.45) = 1.33$, $p = .25$). Thus, irrespective of experimentally manipulated or self-reported decision-making style, participants based their choices on the anticipated happiness of the choice options.

Discussion

Do people choose based on what they believe makes them happy? And if so, does the extent to which people do so depend on their (manipulated or preferred) intuitive versus deliberative thinking style? The present study replicates the finding of Benjamin and colleagues (2012), demonstrating that when making choices, participants were inclined to choose the option that they believed would bring them more happiness (i.e., the option with the highest level of anticipated happiness). Interestingly, however, we found no evidence that this tendency was moderated by making choices in an either intuitive or deliberative mindset (in fact, as can be read in the online resource, the anticipated happiness effect on choice was not moderated by any of the factors that we measured additionally, including the level of happiness of the participant, materialistic values, or tendency to pursue happiness). In short, the current findings indicate that people's choices are directed by the extent to which they expect that the choices will bring more happiness, irrespective of *how* the choices are made.

The current research findings provide additional evidence for the literature on emotion-based choice (Mellers, Schwartz, & Ritov, 1999). Previous research suggests that decisions are influenced by anticipated specific emotions, like regret or disappointment that might result from a decision (e.g., Abraham & Sheeran, 2004; Richard et al., 1996; Zeelenberg & Pieters, 2004). In addition to such previous findings, our results suggest that decisions are influenced by anticipated happiness. An

explanation for our findings could be derived from the subjective expected pleasure theory (Mellers et al., 1999; Mellers & Mcgraw, 2001). According to this theory, people often make an estimation of the pleasure or pain a future action will bring. We reason that, in our study, when participants were presented with the hypothetical life events, they anticipated the pleasure or the pain they would experience as a result of choosing each of the available options, which gives them a general sense of how happy or unhappy choosing a certain option would make them. They then chose the option they thought would maximize happiness.

The present findings seem to further underline the importance of happiness in people's lives. That is, the findings suggest that people do make choices based on what they believe would make them more happy (i.e., anticipated happiness). For many if not most people, the desire to be happy is more important than other goals (Diener, 2000; Myers, 2000), and this striving for happiness is supported by many research findings suggesting that people can actually do something to become happier (Lyubomirsky & Layous 2013; Tkach & Lyubomirsky, 2006). Anticipating the level of happiness a certain choice would bring, and choosing based on this estimation, is potentially an effective strategy that people use to optimize happiness levels.

Importantly, in the current research, we did not find that intuitive or deliberative thinking style (nor any other factors; see online resource), weakened the link between anticipated happiness and choice. This raising the interesting question: what factors possibly would cause people to make choices that do not make them happy? First, although not examined here, one important factor may be social norms that may undermine the effect of anticipated happiness on choice. In the current research, participants made their choices arguably without being influenced by social norms. They made their choices online and anonymous, and the choices were hypothetical. However, in real-life decisions, people may consider social norms to a varying degree when making decisions. In other words, they may choose based on what a social norm dictates rather than on what makes them happy. As an interesting example, research demonstrates that people choose to stay in a romantic relationship that makes them unhappy because they believe it is the norm to stay in the relationship, and leaving the relationship may result in social disapproval (e.g., Etcheverry & Agnew, 2004). Thus, future research may examine whether social norms moderate the relationship between anticipated happiness and choice.

Several scholars have suggested that the relationship between the style of thinking and decision-making is stronger when the attributes of the decision task matches the characteristics of the style of thinking (Dijksterhuis & Nordgren, 2006; Epstein, 1994; Wilson & Schooler, 1991). To give an example, Inbar and colleagues (2010) demonstrated that the nature of the decision-making task induces people to use either deliberative or intuitive processing styles. For example, when making a preferential choice (i.e., choosing between different options, as was the case in the present study), people tend to use an intuitive decision-making style, whereas people tend to use a deliberative style if a choice is perceived as objectively evaluable (i.e., a decision that is evaluated against an objective standard). An interesting topic to investigate in the future is whether the association between anticipated happiness and choice may be weaker in decision-making tasks that require more deliberation.

Several limitations should be considered when interpreting the present findings. First, we presented hypothetical choice options to the participants and asked them to make hypothetical choices, so that there were no real consequences of their choices. This may have discouraged participants to be strongly engaged in the task, and results may change if participants were presented with real options (i.e., choices that are relevant to their personal life or that result in real consequences). We acknowledge that this is an important limitation, as perhaps the anticipated happiness effect that we find here is inflated as compared to the role of anticipated happiness in real life. As noted above, in real life concerns like norms should become more salient when the choices have actual consequences, and can be perceived and 'judged' by others. Future research should replicate the present findings for actual real-life choices, and examine potential moderators of the role of anticipated happiness in making actual choices.

Second, even though participants in the deliberative (versus intuitive) condition did report that they engaged in more deliberation, and indeed took more time to make a decision, probably this still does not reflect the amount of deliberation that people engage in when making a choice in real life. It is likely that more deliberative thinking is required to overwrite the effects of anticipated happiness on choice, as we predicted. Thus, even though that we found converging (null) evidence that both individual difference measures and an experimental manipulation did not affect the role of happiness in decision-making at all, future

research needs to try stronger manipulations of thinking style, in combination with actual rather than hypothetical choices.

Finally, participants were instructed explicitly to reflect on the anticipated happiness of a choice option, which in itself may have influenced their subsequent choice. For example, the anticipated happiness question may have served as a 'prime' for the choice. With regard to this point, our study arguably is a methodological improvement to the Benjamin and colleagues (2012) study, in which participants responded to the anticipated happiness, and to the choice question right after each other, whereas in our study there was at least five days in between the anticipated happiness question and the choice. Still, we do not know to what extent in real life people *spontaneously* make an estimation of the happiness outcomes of a choice before they actually make a choice.

Conclusion

The present research found the effect of anticipated happiness on choice, irrespective of participants' way and preference of thinking (and irrespective of subjective happiness, materialistic value, and pursuit of happiness; as shown in the online supporting materials). In other words, we did not find support that any seemingly relevant personality characteristic, nor an induced decision style, weakened (nor strengthened) the influence of anticipated happiness on the choices that participants made. Although these findings should be considered in light of some limitations, they are consistent with the general idea that happiness is a prominent driver in the lives of most people. It is our hope that the present results form a springboard to further examine this topic.

Supplementary Material

The research reported in this chapter were testing the hypotheses that people will choose the options that they believe will make them happier, and that this effect of anticipated happiness on decision making will be moderated by people's style of thinking (i.e., intuitive or deliberative). In addition to testing the main

hypotheses, we tested whether the relationship between anticipated happiness and decision making is moderated by several individual difference measures, such as subjective happiness, the pursuit of happiness, and materialistic value orientation. In this document, we briefly inform the readers about the individual difference measures, data analyses and the results. We refer the readers to the manuscript for the detailed report on the study design, participants, and procedures that have been used in this research.

First, we examined the moderating effect of subjective happiness. If people make choices based on anticipated happiness, it can be argued that, when making choices, happier people would rely on the anticipated happiness more strongly than less happy people. Perhaps happy people are happy precisely *because* they use the extent to which an option would make them most happy as a reference for making choices. In contrast, less happy people may be unhappy because they base their choices on something else than the anticipated happiness of options (e.g., norms).

Second, we explored the effect of people's pursuit of happiness. Although most people want to be happy, they are different in the degree to which they value happiness and take action to pursue it (e.g., Ford et al., 2015). Lyubomirsky and colleagues (2005) show that a short-term happiness-enhancing activity (e.g., performing act of kindness, counting one's blessing) can increase happiness. It can be argued that people who are likely to pursue happiness would choose based on anticipated happiness more so than people who are less likely to pursue happiness.

Finally, we explored the effect of materialistic value orientation. We used the Love of Money Scale (Tang, et al., 2006) as a proxy of materialistic value orientation. People scoring high in the Love of Money Scale have more wishes to be rich, are more motivated by money, and believe in the importance of money. Several studies on the relationship between materialistic/money orientation and well-being shows that people who had strongly internalized materialistic values reported lower happiness (Kasser & Ahuvia, 2002). Moreover, being overly focused on money or being overly concerned with financial success are associated with lower well-being (Tatzel, 2002). Perhaps, people with high level of love of money (i.e., strong materialistic values) are more likely to base their choices on what makes them rich or brings them more money. We thus explored whether the effect of anticipated happiness on choice would be less strong in this group of people.

Methods

Materials

Participants reported their subjective happiness using the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper 1999) which consists of four items. Participants indicated their perception of their level of happiness on a 7-point Likert scale (e.g., "In general I consider myself (1) not a happy person to (7) a very happy person"; α = .89). A higher level of subjective happiness was indicated by higher averaged scores.

To measure the motivation to pursue happiness, we used the Pursuit of Happiness Scale (Kumalasari, Karremans, & Dijksterhuis, under review) which consists of 9 items. Participants indicated their level of agreement with 5 statements (e.g. "I spend most of my time trying to be happy"), that could be scored on 7-point Likert scale (*1 = strongly disagree to 7 = strongly agree*; α = .84). A stronger motivation to pursue happiness was indicated by higher averaged scores.

Materialistic value orientation was measured using the Love of Money Scale (LoMS; Tang et al., 2006) which consists of 9 items representing three latent constructs: wanting to be rich (i.e., "I want to be rich"), money as a motivator (i.e., "I am highly motivated by money"), and importance of money (i.e. "Money is good"). The scale uses a 5-point Likert scale (*1 = strongly disagree, 3 = neutral, 5 = strongly agree*; α = .89) for the responses. Higher level of love of money was indicated by higher averaged scores.

Data analysis

To test the moderation of participants' subjective happiness, the pursuit of happiness, and materialistic value orientation on the relationship between anticipated happiness and choice, we performed a series of linear mixed-effects models. The model includes the within-subject anticipated happiness, each of the within-subject proposed moderator, and their interactions as the independent variables, and choice as the dependent variable. We included the Bonferronni's method of controlling for multiple testing, because we conducted in total of 5 hypothesis testing (including the analyses for the moderation of preference for

intuitive and deliberative thinking reported in the manuscript). Using this method, we decided to reject null hypothesis if the minimum $p \leq \alpha/3$ ($p \leq .02$).

Table 1
Results of moderation analysis for the proposed moderators

Predictors	df's	F	p
Happiness	(1, 22.33)	394.29	< .017*
SHS	(1, 138.90)	3.39	.07
Happy*SHS	(1, 127.42)	0.32	.58
Happiness	(1, 22.58)	409.30	< .017*
PH	(1, 138.19)	4.45*	.04
Happy*PH	(1, 113.38)	0.95	.33
Happiness	(1, 22.34)	390.98	< .017*
LoMS	(1, 139.29)	0.10	.76
Happy*LoMS	(1, 112.78)	0.32	.57

Note: Happiness, anticipated happiness; SHS, subjective happiness, LoMS, attitude toward money; PH, pursuit of happiness. *alpha significance level was established using Bonferroni method of controlling for multiple testing to ≤ .017 ($p \leq .05/3$).

Results

Consistently, we found significant main effects of anticipated happiness on choice (all p's < .017; see Table 1). The main effects of each proposed moderator were not significant (all p's > .04). Most importantly, as presented in Table 1, there were no significant interactions between anticipated happiness and any of the proposed moderators on choice (all p's > .17). Thus, irrespective of one's level of happiness, the pursuit of happiness, and materialistic values, participants based their choices on the anticipated happiness of the choice options.

Discussion

In the current research, we did not identify any of the factors that theoretically may weaken the link between anticipated happiness and choice: neither people's subjective happiness, tendency to pursue happiness, or materialistic value

orientation. These findings seem to underline the superior effect of anticipated happiness on decision making. The theoretical and societal implications of these findings are discussed in the manuscript.

Ethical Approval

All procedures performed in the study involving human participants were following the ethical standards of the institutional research committee (The Ethics Committee, Faculty of Social Sciences, Radboud University, reference number 18U.004781) and the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Data Availability Statement

The raw data and the R script for analyses are available at a public repository website (https://osf.io/vp6td/).

Chapter 5

Discussion

The present dissertation aimed to investigate some of the implications of the general notion that happiness is considered important to most people. Specifically, the studies reported in this dissertation were designed to examine the relation between a perceived happiness norm, happiness pressure, happiness pursuit, and subjective happiness; the relation between levels of others' happiness and evaluation toward others in terms of liking and envy; and the relation between anticipated happiness and choice. In this chapter, I briefly summarize the major findings, and discuss some broader implications of the present dissertation.

Overview of the Findings: Is Happiness Important?

The studies presented in this dissertation suggest that happiness is indeed very important, and that this has various consequences. In Chapter 2, I addressed the question whether perceiving happiness as a norm is related to the tendency to pursue happiness and the level of subjective happiness. I tested these relationships in four countries that endorse either more collectivistic or more individualistic worldviews. Supporting the social norms literature (e.g., Cialdini, Kallgren, & Reno, 1991; Kallgren, Reno, & Cialdini, 2000), results revealed that participants across countries generally agreed that there is a norm to be happy[1]. Various relationships between the perceived happiness norm and other variables were found across countries. For example, in the Netherlands, China and Indonesia (but not in The United States) a happiness norm was positively related to subjective happiness. In other words, the more people perceived that there is a societal norm to be happy, the more happiness they actually reported. In all countries but the Netherlands, a happiness norm was positively related to the pursuit of happiness. Moreover, in the United States and China the relation between the happiness norm and subjective happiness was mediated by the pursuit of happiness. Interestingly, in all countries

[1] Although it was not reported in Chapter 2, results revealed that the mean scores of the happiness norm scale for all countries were higher than 5.0 on a 7-point Likert scale (M_{US} = 5.51, SD_{US} = 1.05; M_{NL}= 5.10, SD_{NL} = .96; M_{IN} = 5.0, SD_{IN} = .88; M_{CH}= 5.50, SD_{CH}= .99), indicating that on average participants across countries generally agreed that they perceived a norm to be happy in their society. These results were not reported in Chapter 2 because the main aim of the study was not for comparing the means of the variables.

the perception of happiness as a *pressure* was associated with lower subjective happiness, and in the United States this relationship was mediated by a diminished pursuit of happiness. In general, these findings may suggest that a perceived happiness norm may lead people to pursue happiness and actually become happier. However, an experience of societal pressure to be happy may undermine the pursuit of happiness and decrease happiness.

In Chapter 3 I focused on the question whether a target person's level of happiness is related to the extent to which people like and envy that person, and whether this relationship is moderated by the level of happiness of the one who is judging (i.e. the evaluator). Based on the similarity principle (Byrne, 1961; Montoya et al., 2008) it could be argued that happy people would evaluate happy others more positively as compared to unhappy others, and that unhappy people have a relative preference for unhappy people. Results of three experimental studies showed that participants based their evaluation toward others, in terms of liking and envy, on the other persons' levels of happiness. Contrary to the similarity principle, happy people were liked and envied more than unhappy people, regardless of whether the evaluators were happy or unhappy themselves. Furthermore, the effect of the target person's happiness on liking and envy was overriding the effect of the target person's health and wealth. Happy people (as compared to unhappy people) were more likeable irrespective of their health and wealth, and were more envied especially when they were healthy and rich. Importantly, results revealed that a target persons' unhappiness was evaluated negatively and that fear of emotional contagion was driving the effect, such that people like unhappy others less because they fear being contaminated by the persons' unhappiness. Thus, findings in Chapter 3 suggest that people not only desire happiness in themselves, but also in others, and in fact, that they want to avoid unhappy others in order to maintain their own happiness.

In Chapter 4 I turned to the question whether people base their choices on the level of happiness they believe a choice option would bring (i.e., anticipated happiness), and whether this would depend on whether decisions are made intuitively or deliberatively. Based on the dual information processing literatures (Evans, 2010; Kahneman, 2011), it has been argued that anticipated happiness may act as an "affect heuristic" that guides intuitive thinkers when making choices, so that intuitive thinkers base their choices on anticipated happiness more than deliberative thinkers. Results revealed that participants based their choices indeed strongly on

anticipated happiness, however, this was independent of whether they made the choice in a deliberative or in an intuitive mind-set. Furthermore, the effect of anticipated happiness on choice was so strong that it overrode any possible effects of people's current level of happiness, materialistic values, or tendency to pursue happiness. In sum, the findings in Chapter 4 imply that people choose the options that maximize happiness indicating that they desire happiness so much.

Each of the reported studies has limitations which are already discussed on the Discussion section of each chapter. I summarize the most common limitations of the studies. First, the studies used self-report measures to assess participants' individual differences such as subjective happiness. This may distort participants' responses, such that participants may respond in a particular direction (i.e., positive, negative, moderate, or extreme) regardless of the content of the test variable, and participants may consciously or unconsciously create a certain impression (i.e., social desirability responding) (Lanyon & Goodstein, 1997). Perhaps these biases, particularly social desirability responding, affect participants' responses, and interestingly, it may do so especially in a society that strongly perceives the norm to be happy. For example, participants' scores on the subjective happiness scale may be inflated because they consciously or unconsciously tried to create an impression that they are happy, in conformity to the norm. Second, the studies in Chapter 3 and Chapter 4 used hypothetical person descriptions and options of life situations as experimental manipulations. These stimuli may not perfectly capture real life people and situations. It is likely that participants respond differently when they are presented with stories of real persons or options that are directly relevant to their life situation and have real consequences. In real life, people may take into consideration other matters such as norms when they evaluate others or make choices.

Although the findings in this dissertation should be considered in light of such limitations, together the findings are consistent with the general notion that happiness *is* very important and has some potentially important downstream consequences: happiness is perceived as a norm in society, and these perceptions are related to the tendency to pursue happiness and actual subjective happiness. Moreover, happiness plays an important role in how people evaluate others, and plays an important role in how they make choices.

Theoretical Implications

All things considered, the findings imply that the desire to be happy underlies what we do, how we judge others, and what choices we make. Below I underline some implications these findings may have on the social psychological literature on happiness, social norms, person judgment, and decision making. Also, in this section, regarding these implications, I will discuss several possibilities for future directions.

Happiness, Social Norms, and Cultures

The findings in Chapter 2 suggest that participants across four countries perceived a norm to be happy on average degrees. This implies that happiness indeed is perceived as a norm in these societies. Social psychology research on social norms typically focuses on intervention studies to promote certain positive behaviours, such as pro-environmental (e.g., green behaviour, Elgaaied-Gambier et al., 2018) and health behaviours (e.g., anti-smoking, Dono et al., 2020); fast-food consumption, Van Rongen et al., 2020). The present findings suggest that research on social norms may consider the happiness norm as a new field of study to explore the causes and consequences of the happiness norm. For example, in line with the previous findings on norm-intention associations and norm-behaviour associations (see Fischer et al., 2019 for review), the present study provided initial support for the happiness norm - happiness pursuit link and the happiness norm - subjective happiness link. Thus, future research should examine the causal relationship between the happiness norm and happiness pursuit, which may affect individual's subjective happiness. In general, it would be interesting to see whether the perceived happiness norm follows the same principles as other societal norms in motivating people to follow the norm.

The study in Chapter 2 has also shown that the associations between the happiness norm, happiness pursuit and subjective happiness vary significantly but not consistently across individualistic and collectivistic countries (cf., Fischer et al., 2009; Hofstede et al., 2010). It has been repeatedly found that the effects of a societal norm on behaviour and behavioural intentions are stronger in more collectivistic

cultures (Fischer et al., 2019). For example, results from two large international samples suggest that in collectivist cultures people are influenced by the perceived normative desirability of life satisfaction when appraising their life satisfaction, while in individualist cultures people rely more on their private feelings (Suh et al., 1998). However, the present findings show that a significant relationship between the happiness norm and happiness pursuit may also be observed in an individualistic country such as The United States (the 1st rank among 76 countries on the Individualism Index Values/ IDV; Hofstede et al., 2010), while it was not the case in The Netherlands (the 6th rank on the IDV). Perhaps, in search for a consistent explanation on the role of culture in the happiness norm, happiness pursuit and subjective happiness link, future research may consider to measure the cultural dimensionality at individual levels (i.e., Fischer et al., 2009), and examine whether the individual difference level of cultural dimensions would moderate the happiness norm - happiness pursuit relationship. A good example of such research has been conducted by Suh and colleagues (2008). In the studies, they measured and primed individuals' self-construal (Markus & Kitayama, 1991), examined its role on life satisfaction judgments, and found that differences in self-construal processes underlie cross-cultural differences in life satisfaction judgments.

Furthermore, the search for the link between the happiness norm and subjective happiness may as well be expanded to the other approach of happiness, namely eudaimonic well-being. According to the eudaimonic perspective, happiness is defined by external criteria, in terms of possessing desirable qualities such as virtue (Aristotle), self-realization (Ryan & Deci, 2000; Waterman, 1993), and meaningfulness (McGregor & Little, 1998). These qualities are prescribed as the normative standard to judge people's lives (Diener, 1984). The studies in the current dissertation asked participants to subjectively evaluate their happiness using their own definitions or standards. In general, participants reported a moderate level of subjective happiness and a moderate level of perceived happiness norm. Perhaps, these responses would be different when they are exposed to the normative standards of being happy as suggested by the eudaimonic perspective of happiness. Similar to the findings presented in Chapter 2, it would be interesting to examine whether societal norms about virtues would actually lead to more virtuous behaviour in people, and whether this would make them happier in the eudaimonic sense.

To date, very little is known yet about how societal norms about happiness are being perceived, what determines them, and how they may affect people's happiness. These may raise questions such as what individual and cultural factors are associated with the happiness norm, whether the excessive use of social media leads to frequent or intense perception of happiness norm, and what the implications of these relationships are. Moreover, it important to know whether a happiness norm could actually benefit society and whether there is an optimum amount of perceiving a happiness norm so that it would benefit society, and not turn into happiness pressure. The fact that the happiness norm can be reliably measured in different cultures opens an opportunity to explore the experience of a social norm to be happy in different societies and examine the role of cultural differences on how people respond to the happiness norm.

Happiness and person judgment

Despite the robust effect of similarity-attraction theory (Byrne, 1961), three experimental studies in Chapter 3 repeatedly found no significant evidence to support this phenomenon in the domain of happiness. Similarly, previous research on adolescence friendship network and happiness (van Workum et al., 2013) found that adolescents do not form friendships based on happiness similarity between them. However, they do end friendships with peers who were dissimilarly happy (i.e., unhappier or happier than themselves). These findings suggest that two persons' similar levels of happiness do not influence the extent to which these persons like or attracted to each other. Apparently, unlike many other traits, happiness seems a 'special' case for which the similarity hypothesis does not apply. Notably, however, more research is needed, and future research should investigate the effect of happiness similarity in different contexts.

Importantly, the studies in Chapter 3 suggest that an unhappy person is evaluated negatively because people experience a fear of emotional contagion. Similar results have been reported by van Workum and colleagues (2013) where they suggest that adolescents dissolve friendships with their unhappier peers because such friends' moods trigger dissatisfaction with the relationship and increase the chance of ending it (Buunk & Ybema, 2003). Indeed, they found that adolescent friends influenced each other's happiness over time (to the direction of more and

less happy) and became more similar in happiness. An interesting question is whether such findings might depend on happiness norms in society, as I studied in Chapter 2. In societies with stronger happiness norms, one could argue that unhappy people divert even more strongly from the norm, and may be evaluated even more negatively. Integrating the research methodologies from Chapter 2 and Chapter 3 would be able to address this issue in future studies.

Happiness and decision making

Arguably, most decisions in life are driven by the pursuit of happiness (Hsee & Hastie, 2006). The study presented in Chapter 4 supports this notion by demonstrating that people's choices are highly affected by their prediction of the extent to which the available options make them happy. Also, this study contributes to the emotion-based choice theory (Mellers & Mcgraw, 2001; Mellers, Schwartz, & Ritov, 1999) by adding the effect of anticipated happiness on choice to the literature. Although previous research has found that often people fail to maximize happiness due to several systematic biases (see Hsee & Hastie, 2006 for review), the study in Chapter 4 did not find factors related to information processing in decision making (e.g., intuitive or deliberative thinking styles) that weakened the link between anticipated happiness and choice. Future research should explore other aspects of decision-making processes that may cause people to make choices that do not promote but actually undermine happiness, as is often observed in daily life.

Practical Implications

The findings presented in this dissertation may have several potential practical implications. First, from the normative perspective in Chapter 2, it is may actually be a good thing to perceive happiness as a norm. Perceiving a norm to be happy may actually increase happiness since it may lead us to pursue happiness more (while, of course, it may also be the case that people higher in happiness may perceive a happiness norm more strongly as a result of their own happiness). Paradoxically, the study also shows that when happiness is perceived as a pressure, it may backfire and actually undermine our happiness. This phenomenon has also been shown by Mauss and her colleagues (2011, 2012). Considering the paradoxical

relationship between happiness norm, happiness pressure and subjective happiness, it may be important for policy makers and governments to promote the happiness norm, so that people take good care of themselves, but in such a way that it does not turn into pressure, especially for people who deviate from the norm (e.g., unhappy people). Finding this balance between promoting a happiness norm versus happiness pressure seems an important societal challenge.

Second, social media seems to have an obvious role in initiating the experience of a happiness norm and happiness pressure. For example, people tend to present the most positive sides of their lives on social media (Nadkarni & Hofmann, 2012) so that a social media user may believe that his or her own life is not as happy or as good as the lives of friends and others (Chou & Edge, 2012). This unfavourable social comparison can undermine happiness by lowering self-esteem (Shakya & Christakis, 2017). Given the effect of social comparison in social media on happiness, perhaps there should be guidelines or a movement to motivate people to be more mindful when using social media, and to create awareness that posting only "the good stuff" actually may contribute to an atmosphere of happiness pressure.

Third, to what extent do expectations of others play a role in creating a norm or a pressure to be happy? Previous research suggests that when people perceive a social expectation that they should feel happy, they actually feel sad more frequently and intensely, and feel more lonely (Bastian et al., 2012, 2015). Such expectations may for example play a role for people with certain professions (e.g., psychologist, comedians, entertainers, mindfulness trainers, priests, monks, etc.), as they might be expected to be happier than the average person. How does this social expectation affect these groups of people? It would be interesting to see whether for people in such professions that are stereotypically linked with happiness, the happiness norm may be experienced as pressure, paradoxically undermining their happiness. More generally, the happiness norm may be stronger for some people in society than for others, and may actually be perceived as pressure, simply because others expect them in particular to be happy.

Fourth, in addition to the happiness norm as shown in Chapter 2, based on Chapter 3, we could argue that there is prejudice against less happy people since less happy people are evaluated less positively, and happier people more positively. What is the implication of the negative evaluation of unhappy people? Our findings

may suggest that unhappy people will be less likely to get support, be isolated or stigmatized (e.g., Ozmen et al., 2004), while they are the ones who actually are more in need of support and care. Interventions to foster public awareness of the need to alter people's attitudes toward unhappy others are needed to build a more caring society.

Finally, Chapter 4 suggests that our choices are heavily influenced by the level of happiness we *predict* the choice may bring. However, in real life people are not always good at predicting what makes them happy and sometimes people make choices based on other reasons (e.g., rules) (Hsee & Hastie, 2006), even when knowing that it undermines happiness. For example: While I'm writing this dissertation, most people around the world are staying at home because of the Covid-19 pandemic. Especially in Indonesia which is known as a collectivistic country (rank 70th among 76 countries on IDV; Hofstede et al., 2010), spending time with significant others (i.e., parents, family, friends), celebrating cultural festivities, and attending religious worships with other cultural/religious members generally induces more happiness. However, people are restricted and discouraged to do so because of the health and safety measures. In this real-life situation, what would people choose? Would they choose based on what makes them happy (i.e., going out to see significant others and pray in mosques or churches) rather than staying at home for safety? I observed that many people choose to stay at home but some people choose go out for attending religious worships and travel to their hometown for celebrating religious festivities. It is clear from this example that anticipated happiness may not be the only factor that influence people's choices, and an important challenge for future research is to uncover the factors that determine people to make choices that actually undermine their happiness.

General conclusion

The results of the studies presented in this dissertation reveal that striving for happiness has important implications for the lives of many people. It is suggested by the findings that happiness has become a norm in society, influences how people evaluate others, and affects the choices people make. Specifically, the norm to be happy is positively associated to the tendency to pursue happiness and the subjective happiness; a person's level of happiness is related to the extent to which

he/she is perceived as likable and being envied by others independent of the person's health and wealth; and the level of anticipated happiness of an option is highly associated with the likelihood of choosing the option regardless of the decision maker's intuitive/deliberative mind-set. On the other hand, some people may perceive a pressure to be happy and this perception is associated negatively to the tendency to pursue happiness and subjective happiness; and finally, people tend to dislike unhappy others, and this relationship is mediated by the fear of being affected by the other's unhappiness. These findings suggest the importance of studying happiness through different theoretical views in social psychology, such as social norms, person judgment, and decision making, in order to obtain a better understanding of the role happiness plays in many aspects of human functioning. This dissertation ads a few pieces of the puzzle in happiness research, and hopefully inspires other scholars to further investigate this important topic.

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Summary

Nobody wants to be hungry, thirsty or sick. Everybody wants to be full and healthy, live a satisfying and calm life without being overwhelmed by worry and fear. Naturally, humans seek for the bodily pleasure along with the peace of day, avoiding as best as possible physical pain and mental anxiety. Instinctively, everybody seeks happiness and avoids suffering.

People desire happiness so much so that it is sought in various ways and in various places in the course of human history. Happiness is utilized as a goal that serves as a measuring tool for assessing the quality of social institutions (e.g., The World Happiness Report; Helliwell et al., 2020). It is recognized as a universal goal of human being around the world and is emphasized as a public policy objective (United Nations, 2012). It is clear that happiness is considered important to the life of many people around the world.

I seek to contribute to the research on happiness that has been rising in the past decades by addressing a broad question regarding the implications of the importance of happiness in people's lives. In this dissertation, I suggest that there are at least three areas of psychological functioning that may be influenced by the desire to be happy that is shared by many people.

First, by becoming a societal goal in modern societies, the desire to be happy has been made salient in people's daily lives. Therefore, it is likely that happiness has become a norm in society. People believe that they *ought* to be happy as a result of the emphasis on happiness through public policy, social media, and daily life interactions. Chapter 2 shows that in a large sample from the United States, the Netherlands, China and Indonesia perceived the norm to be happy (i.e., the believe that people should be happy) in their society on average degrees. Moreover, the perception of the happiness norm is associated with people's subjective happiness, at least in the Dutch, Chinese, and Indonesian samples. The more people perceive that there is a societal norm to be happy, the more happiness they report, and vice versa. This association was mediated by the pursuit of happiness in the American and Chinese samples. The findings suggest that the more people perceive the norm to be happy, they are more likely to pursue happiness, and in turn are happier.

As much as the society's emphasis on happiness may motivate individuals to pursue happiness and consequently be happier, the emphasis may also put some pressure on some people. From the samples of four countries (i.e., The United States, The Netherlands, China and Indonesia) I learned that there are people who perceived a pressure to be happy (i.e., the negative feelings or thoughts toward the compulsion to be happy). More importantly, these samples consistently associated the pressure to be happy with lower subjective happiness across countries. Although only evidenced in the United States, the findings show that the more people perceive the happiness pressure, the less they pursue happiness, and the less happy they are. These findings imply that the emphasis of happiness in society may not only bring positive consequences on people's subjective happiness but also negative consequences, such as pressure and lower levels of happiness.

Second, the desire to be happy seems to affect how people evaluate others. Naturally, we would predict that people will evaluate happy others more positively than unhappy others. Chapter 3 provides empirical evidence for this intuitive prediction by showing a significant effect of another person's happiness on liking and envy toward that person. Interestingly, this effect occurs irrespective of the happiness levels of the evaluators. These findings imply the important of happiness in people's lives, such that people tend to evaluate happiness in others positively, even when they are not happy themselves.

Looking at these findings differently, it is important to note that unhappiness is evaluated negatively. People dislike unhappy others even when they are unhappy themselves. The third study in Chapter 3 shows that this effect is driven by fear of emotional contagion, such that people like unhappy others *less* because they fear to be influenced by the persons' unhappiness. These findings imply that people desire happiness not only for themselves but also for others and tend to maintain their happiness by avoiding unhappy others. Of course, these predictions should be further examined.

Third, the desire to be happy may also affect people's decision making. Given that happiness is considered important for the life of many people, it is reasonable to expect that people will choose options that would bring more happiness. However, in real life people do not always make choices that result in more happiness. Perhaps, as other research found, when making decision in everyday

life, people base their decision on various considerations, such as rules and (e.g., Prelect & Herrnstein, 1991) norms (e.g., Dundes, et al., 2009), rather than on the amount of happiness an option would bring. The study reported in Chapter 4 shows that, when making a decision, people tend to anticipate the extent to which each available option would bring happiness and choose the one that they thought would maximize happiness. Interestingly, this strong effect of happiness on decision making is not moderated by any personality characteristic or induced decision style. The findings suggest that happiness is a prominent driver of people's decision-making process.

In conclusion, through a series of studies, the findings reported in this dissertation expand the research field of happiness by examining its effects on different areas of psychological functioning such as social norm, person perception, and decision making. These findings suggest that the importance of happiness impacts on whether society views it as a norm, influences how people evaluate others, and affects the choices people make.

Samenvatting

[Summary in Dutch]

Iedereen wil een gezond, vredig en gelukkig leven leiden zonder overweldigd te worden door zorgen en angst. Mensen zoeken lichamelijk en mentaal genot, en vermijden zo goed mogelijk lichamelijke pijn en mentale angst. Instinctief zoekt iedereen geluk en vermijdt hij of zij lijden.

Mensen verlangen zozeer naar geluk dat het op verschillende manieren en op verschillende plekken in de menselijke geschiedenis werd gezocht. Tegenwoordig wordt geluk gemeten om de kwaliteit van sociale instituties te beoordelen (bijvoorbeeld The World Happiness Report; Helliwell et al., 2020). Het wordt erkend als een universeel doel van mensen in de hele wereld, en wordt benadrukt als een doelstelling van overheidsbeleid (Verenigde Naties, 2012). Het is duidelijk dat geluk als belangrijk wordt beschouwd voor het leven van mensen over de hele wereld.

In dit proefschrift probeer ik een bijdrage te leveren aan het onderzoek naar geluk door een brede vraag te stellen wat de implicaties zijn van het belang van geluk in het leven van mensen. Ik suggereer dat er minstens drie gebieden van psychologisch functioneren zijn die beïnvloed kunnen worden door het verlangen om gelukkig te zijn dat door veel mensen wordt gedeeld.

Ten eerste, doordat geluk een maatschappelijk doel lijkt te zijn in moderne samenlevingen, is het verlangen om gelukkig te zijn zeer saillant in het dagelijks leven van mensen. Daarom is het waarschijnlijk dat geluk een *norm* in de samenleving is geworden. Mensen geloven dat ze gelukkig moeten zijn als gevolg van overheidsbeleid, sociale media en interacties in het dagelijks leven welke het belang van geluk benadrukken. Hoofdstuk 2 laat zien dat in een grote steekproef uit de Verenigde Staten, Nederland, China en Indonesië de norm voor geluk (d.w.z. het geloof dat mensen gelukkig zouden moeten zijn) inderdaad ervaren wordt. Bovendien wordt de perceptie van de geluksnorm geassocieerd met het subjectieve geluk van mensen, althans in de Nederlandse, Chinese en Indonesische steekproeven. Hoe meer mensen ervaren dat er een maatschappelijke norm is om gelukkig te zijn, hoe meer geluk ze rapporteren. Deze associatie werd statistisch gemedieerd door het streven naar geluk in de Amerikaanse en Chinese steekproeven. Deze bevindingen suggereren dat hoe meer mensen de geluksnorm ervaren, hoe groter de kans is dat ze geluk nastreven en hoe gelukkiger ze op hun beurt zijn.

Hoewel de maatschappelijke norm voor geluk mensen kan motiveren om geluk na te streven en dus gelukkiger te zijn, kan deze geluksnorm ook druk leggen op sommige mensen. In de steekproeven van vier landen (de Verenigde Staten, Nederland, China en Indonesië) vond ik dat er mensen zijn die een zekere dwang voelen om gelukkig te zijn (de negatieve gevoelens of gedachten ten opzichte van de dwang om gelukkig te zijn). Belangrijker nog is dat deze steekproeven de druk om gelukkig te zijn consequent in verband brachten met een lager subjectief geluk. De bevindingen laten bovendien zien dat dat hoe meer mensen de geluks*druk* waarnemen, hoe minder ze het geluk nastreven en hoe minder gelukkig ze zijn, hoewel dit alleen in de Verenigde Staten werd aangetoond. Deze bevindingen impliceren dat de nadruk op geluk in de samenleving niet alleen positieve gevolgen kan hebben voor het subjectieve geluk van mensen, maar ook negatieve gevolgen, zoals druk en lagere geluksniveaus.

Ten tweede lijkt het verlangen om gelukkig te zijn van invloed te zijn op de manier waarop mensen anderen beoordelen. Over het algemeen zouden we voorspellen dat mensen gelukkige anderen positiever zullen beoordelen dan ongelukkige anderen. Hoofdstuk 3 biedt empirisch bewijs voor deze intuïtieve voorspelling door een significant effect te laten zien van het geluk van een ander op de voorkeur voor en jaloezie ten opzichte van die persoon. Interessant is dat dit effect zich voordoet ongeacht het geluksniveau van de beoordelaars. Deze bevindingen impliceren het belang van geluk in het leven van mensen, zodanig dat mensen de neiging hebben om het geluk van anderen positief te beoordelen, zelfs als ze *zelf* niet gelukkig zijn.

Het is belangrijk om op te merken dat de bevindingen bovendien lieten zien dat men name *ongelukkig zijn* negatief wordt beoordeeld. Mensen lijken een bepaalde aversie te hebben ten opzichte van ongelukkige anderen, zelfs als ze zelf ongelukkig zijn. De derde studie in hoofdstuk 3 laat zien dat dit effect wordt gedreven door angst voor emotionele besmetting, zodat mensen minder van ongelukkige anderen houden omdat ze bang zijn om beïnvloed te worden door het gebrek aan geluk van de andere persoon. Deze bevindingen impliceren dat mensen niet alleen naar geluk verlangen voor zichzelf maar ook voor anderen, en ernaar streven om hun eigen geluk te behouden door ongelukkige anderen te vermijden. Deze voorspellingen moeten verder worden onderzocht in vervolgonderzoek.

Ten derde kan het verlangen om gelukkig te zijn ook invloed hebben op de besluitvorming van mensen. Gezien het feit dat geluk als belangrijk wordt beschouwd in het leven van veel mensen, is het redelijk om te verwachten dat mensen zullen kiezen voor opties waarvan de verwachting is dat die meer geluk zouden brengen. In het echte leven maken mensen echter niet altijd keuzes die leiden tot meer geluk. Misschien, zoals uit ander onderzoek is gebleken, baseren mensen hun beslissing in het dagelijks leven op verschillende overwegingen, zoals regels (bijv. Prelect & Herrnstein, 1991) en normen (bijv. Dundes et al., 2009), in plaats van op de hoeveelheid geluk die een optie zou opleveren. De studie die in hoofdstuk 4 wordt gerapporteerd toont aan dat mensen bij het nemen van een beslissing de neiging hebben om te anticiperen op de mate waarin elke beschikbare optie geluk zou brengen, en vervolgens te kiezen voor de optie waarvan ze dachten dat die het geluk zou maximaliseren. Interessant is dat dit sterke effect van geluk niet werd beïnvloed (of statistische gemodereerd) door enig persoonlijkheidskenmerk of een experimenteel geïnduceerde beslissingsstijl. De bevindingen suggereren dat geluk een prominente drijfveer is voor het besluitvormingsproces van mensen.

Door middel van een serie studies breiden de bevindingen in dit proefschrift het onderzoeksveld van geluk uit door het onderzoeken van de effecten ervan op verschillende gebieden van psychologisch functioneren, zoals een waargenomen sociale geluksnorm, persoonsperceptie en besluitvorming. Deze bevindingen suggereren dat het belang van geluk van invloed is op de vraag of de samenleving het als een norm ziet, invloed heeft op de manier waarop mensen anderen evalueren, en invloed heeft op de keuzes die mensen maken.

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Biography

Asteria Devy Kumalasari was born in a loving family on May 12th 1978 in Bandung, Indonesia. She is a wife and a mother of two beautiful daughters (born in 2005 and 2007).

She obtained her Bachelor in Psychology in 2001 and a Clinical Psychologist Certification in 2004 at Universitas Padjadjaran, Indonesia. In 2009, she was awarded a StuNed Scholarship from Nuffic Neso Indonesia to pursue a Master of Science in Psychology at the University of Groningen, The Netherland and graduated in 2010. In her master thesis she investigated the effect of unconscious thought on decision making under the supervision of Dr. Mark Nieuwenstein. Since 2013, she conducted the present research as an external PhD student at the Behavioural Science Institute, Radboud University, The Netherlands, under the supervision of Dr. Johan Karremans and Prof. Ap Dijksterhuis, with the support of the Radboud Fellowship Programme.

Asteria is currently working as an assistant professor at the Faculty of Psychology, Universitas Padjadjaran, Indonesia. She intends to keep her promises she had written on her motivation letters to obtain scholarships, which she will keep on sharing her knowledge with wider community by conducting counselling in clinical psychology setting and spreading happiness and well-being through speaking engagements and writings.